

ENVIRONMENTAL ASSESSMENT

ARMED FORCES RESERVE CENTER FAIRCHILD AIR FORCE BASE, WASHINGTON



DEPARTMENT OF THE AIR FORCE AIR MOBILITY COMMAND FAIRCHILD AIR FORCE BASE, WASHINGTON

JANUARY 2007

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14. ABSTRACT As a part of the decisions made by the Base Realignment and Closure (BRAC) Commission, the U.S. Army Reserve and Washington Army National Guard Armory based in Spokane, WA is consolidating and moving their operations to Fairchild AFB. In order to meet requirements of this transformation, facilities and infrastructure improvements are required. Several alternative locations on base were explored and are presented in the environmental analysis. The No Action alternative, which is a non-viable alternative, provides contrast and comparison to the viable alternatives and their relative environmental affects. No significant impacts would result from implementation of the Proposed Action or the No-Action Alternative.					
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FINDING OF NO SIGNIFICANT IMPACT

ARMED FORCES RESERVE CENTER (AFRC) FAIRCHILD AIR FORCE BASE, WASHINGTON

Federal actions that potentially involve significant impacts to the environment must be reviewed in accordance with the National Environmental Policy Act and all other applicable environmental laws. The U.S. Air Force has completed an Environmental Assessment (EA) of the potential environmental consequences associated with the construction of the Armed Forces Reserve Center (AFRC) at Fairchild Air Force Base (FAFB). This Finding of No Significant Impact (FONSI) incorporates the EA by reference and summarizes the results of the evaluation.

Background

As a result of the Department of Defense Base Realignment and closure (BRAC) action, FAFB is the receiving unit for the consolidating units, PFC Joe E Mann Hall U.S. Army Reserve Center and the 1st LT Richard H Walker Army National Guard (WAARNG). BRAC determined that current facilities of these units, based in Spokane, were insufficient in capacity for the consolidation or for future expansion and do not meet the current force structure or unit design requirements of their current and future operations. FAFB has sufficient building capacity and/or build-able acres to support the relocation and consolidation of these units.

Preferred Action – Alternative One

The proposed action consists of construction of a new facility located in the northwest portion of FAFB north of Hansell Avenue and Gate 23 Road. The facility would cover about 30 acres and comprise a total of 252,975 square feet in facilities and parking. Facilities would provide for administration, assembly, training classrooms, maintenance shops, storage, and parking for both military equipment and personnel.

Alternative Two

A second alternative was evaluated and used as comparison with the other alternatives. This alternative does not construct new facilities but assimilates AFRC operations into existing infrastructure at FAFB. The alternative requires relocation of existing operations and personnel, sharing of infrastructure with existing operations, and renovation of existing infrastructure.

No-Action Alternative

The no-action alternative is to not relocate AFRC to FAFB. There is no change in operations or facilities for either FAFB or AFRC with this alternative.

Anticipated Environmental Effects - Proposed Action

The proposed action and the no-action alternative have been reviewed in accordance with NEPA as implemented by the regulations of the Council on Environmental Quality and AFI 32-7061. The following summarizes the results of the attached EA.

Air Quality and Noise: Once in operation, the proposed action will not result in additional air pollution or noise. During construction, potential exists for minimal, short-term impacts to local air quality and increases in noise. Existing air permit thresholds for pollutants will not be exceeded during this period. Noise thresholds will not be exceeded during this period. In order to provide mitigation, the contractor is required to develop a dirt and dust control plan for the construction site, which aims to minimize airborne dust. Therefore, there will be no significant air quality or noise impacts resulting from the proposed project.

Water Resources: The proposed action will result in an increase in storm water runoff, which will be accommodated by catchment and conveyance in the existing storm water system and by local dispersal and infiltration in to the natural environment.

No impact to water quality is anticipated. Sediment delivery to surface water bodies is not likely as there are no watercourses within the proposed construction site. Storm water is treated either by settlement and infiltration or by infiltration prior to entering the groundwater. A Stormwater Pollution Prevention Plan is required for every construction site which will provide mitigation during ground disturbance. The project site will be stabilized with vegetation upon completion. Hazardous waste will be disposed of in accordance with all regulations and laws to protect water quality.

Geologic Resources: Natural site productivity will be converted to hard infrastructure on approximately six acres. The area and soils are well suited for development and no adverse impacts are anticipated on adjacent land. Soils are well drained and deep. The terrain is nearly flat.

Biological Resources: The proposed action will result in the loss of unimproved grassland adjacent to and within the six acre project site. The current condition is fair to poor with increasing invasive and noxious weed plants prevalent for the general area. Management of the site as developed lands with irrigated landscaping may deter conditions of rate of spread of noxious weeds. The change is a change in type of wildlife habitat to more urban character but is a slight improvement in condition quality for some species of birds and small mammals. There are no protected species or habitats in the project area.

Cultural Resources: There are no known cultural resources existing in the region of influence of the proposed project. The probability is low that undisturbed, significant archaeological resources, including human graves, will be discovered during future construction. The Integrated Cultural Resources Management Plan (ICRMP) sets forth standard procedures that must be followed in the event any type of archaeological site is

discovered during the course of earth-disturbing activity on base. With adherence to the ICRMP procedures, there will be no impacts to cultural resources.

Infrastructure and Utilities: The proposed action will result in an increase in traffic volume in the vicinity. The pattern of use will be mostly on weekends when FAFB traffic volume is low. New facilities will tie into existing infrastructure. It is anticipated that no new permits or infrastructure upgrades will be necessary and that increases in use can be easily accommodated with the existing infrastructure. Transportation route from Rambo Road to Eaker Road will be moved north of the new AFRC compound and a new connection will be made to Gate 23 Road using Sport Range Road. This change does not alter the distance traveled from the current.

Land Use: The proposed action will result in the conversion of land from unimproved/semi-improved to industrial land use. This change is compatible with FAFB General Plan. Therefore, there should be no unanticipated significant effects to land use.

Wastes and Hazardous Materials and Pollution Prevention: There will be an increase in the use of hazardous materials and generation of hazardous waste at FAFB but an overall no net change when considering that existing AFRC operations are occurring elsewhere in the Spokane area currently. All handling of hazardous materials on FAFB is conducted in a manner and in compliance with laws and regulations that protect from environmental impact. Therefore, no significant impacts are anticipated by the relocation of the AFRC operation.

Safety and Occupational Health:

A minor beneficial effect is expected in safety and occupational health during the day to day operations of the proposed facility. Upgrade and design enhancements of the new facilities will enhance a safe work environment over the existing older facilities. No significant effects are anticipated during construction of the facility, since work will be performed in accordance with all applicable safety and occupational health standards.

The new transportation route connecting Rambo Road to the flightline will direct military operations materials (e.g., hazardous materials and explosives) transported to the flightline through the new AFRC compound. This change is within existing industrial land use and this hazard occurs elsewhere on Base in industrial areas. The hazard is minimized by best practices and the fact that AFRC will only be fully occupied one or two weekends a month.

Jet blast from the Christmas Tree aircraft parking area is a potential hazard in the worse case/emergency situation. Mitigation to minimize this hazard is to construct jet blast barriers and to upgrade pavement surface to reduce the likelihood of flying particles reaching the AFRC compound. The current distance, design of the compound, and this mitigation significantly reduces the safety hazard to a satisfactory level.

Environmental Management (Environmental Restoration Program (ERP))

No sites of contaminated soils or groundwater have been identified by the ERP program to be of concern for the proposed action. Although ERP sites are present at FAFB, they are

not located within the project site and offer no indirect hazard to the site. Two historic firing ranges are located adjacent to the site the direct of line of fire is a way from the proposed location. Minor stray munitions may be located on the site but do not present a health or safety hazard in the quantities anticipated. No significant negative effects are expected in relation to the Environmental Restoration Program.

Indirect and Cumulative Impacts: An analysis of the Proposed Action, in conjunction with other present and proposed activities, concluded that no significant cumulative environmental impacts would occur.

Public Review

A Notice of Availability for the Draft EA was published in the Fairchild Connection on January 18 2007 and a news release was provided to the local press on 10 January 2007. The public comment period ended on 17 February 2007; comments were received. The final EA was revised according to comments received and additional mitigation was recommended.

Availability

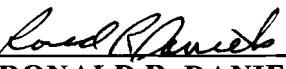
A copy of the Final EA is available from:

92 CES/CEV
100 W. Ent St.
Suite 155
Fairchild AFB, WA 99011
(509) 247-2313

Conclusion

Based on the attached EA conducted in accordance with the requirements of NEPA, CEQ Regulations, and AFI 32-7061, I conclude that the Proposed Action will have no significant individual or cumulative impacts upon the environment. An Environmental Impact Statement is not warranted and one will not be prepared. The signing of this FONSI completes the Environmental Impact Analysis Process under Air Force regulations.

APPROVED BY:



RONALD R. DANIELS
Deputy Base Civil Engineer
92 Civil Engineer Squadron
Fairchild Air Force Base, WA 99011
(509) 247-2291

COVER SHEET

ENVIRONMENTAL ASSESSMENT

CONSTRUCT ARMED FORCES RESERVE CENTER FAIRCHILD AFB, WASHINGTON

Responsible Agency: Department of the Air Force, Air Mobility Command, Fairchild Air Force Base (AFB), Washington.

Proposed Action: Construct Armed Forces Reserve Center (AFRC). Project is located at Fairchild AFB, Spokane County, Washington.

Contact Information: Comments and inquiries regarding this document should be directed to: Public Affairs, 1 East Bong St., Fairchild AFB, WA 99011. Phone: (509) 247-5704.

Report Designation: Environmental Assessment

Public Review Period: Public review was conducted from January 18 through February 17 2007.

Abstract: As a part of the decisions made by the Base Realignment and Closure (BRAC) Commission, the U.S. Army Reserve and Washington Army National Guard Armory based in Spokane, WA is consolidating and moving their operations to Fairchild AFB. In order to meet requirements of this transformation, facilities and infrastructure improvements are required. Several alternative locations on base were explored and are presented in the environmental analysis. The No Action alternative, which is a non-viable alternative, provides contrast and comparison to the viable alternatives and their relative environmental affects. No significant impacts would result from implementation of the Proposed Action or the No-Action Alternative.

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Appendix B Armed Forces Reserve Center Proposed Site Location and DD Form 1391
Appendix C Applicable laws, Regulations, Policies, and Planning Criteria

LIST OF ACRONYMS AND ABBREVIATIONS

AICUZ	Air Installation Compatible Use Zone
AFRC	Armed Forces Reserve Center
ARW	Air Refueling Wing
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DRMO	Defense Reutilization and Marketing Office
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EO	Executive Order
EOD	Explosive Ordnance Disposal
EPA	U.S. Environmental Protection Agency
FONSI	Finding of No Significant Impact
FAFB	Fairchild Air Force Base
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NOx	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority Listing
PM	Particulate Matter
POV	Privately Owned Vehicle
PPA	Pollution Prevention Act
RCRA	Resource Conservation and Recovery Act
TSD	Treatment, Storage and Disposal
WAARNG	Washington Air Reserve National Guard
USAF	United States Air Force

Chapter 1: Purpose and Need for Action and Scope of Analysis

1.1 Introduction and Background

In 2005, the Department of Defense's Base Realignment and Closure (BRAC) Commission identified transformations to realign the nation's defense organization. BRAC determined that the PFC Joe E Mann Hall U.S. Army Reserve Center #80 and 1st LT Richard H. Walker Army National Guard (WAARNG) Armory in the Spokane area would consolidate and relocate to Fairchild Air Force Base (FAFB). BRAC determined that current facilities do not have sufficient capacity for consolidation or expansion and do not meet current force structure or unit design requirements and that FAFB has sufficient building capacity or build-able acres to support the consolidation. The consolidated organizations are referred to as Armed Forces Reserve.

This environmental assessment (EA) will determine whether the proposed action of sighting a joint facility for the new Armed Forces Reserve Center on FAFB would result in any significant impacts. If impacts are predicted, mitigation would be prescribed to reduce impacts below the level of significance or recommend the preparation of an Environmental Impact Statement to address unmitigated impacts or abandon the proposed action. This EA would also be used to guide the implementation of the proposed action consistent with laws, regulations, and U. S. Air Force standards for environmental stewardship.

Chapter 1 includes background information relevant to the proposed action, the purpose and need for the proposed action, an overview of the scope of the analysis and a summary of key environmental compliance requirements.

1.2 Purpose and Need for the Proposed Action

The Armed Forces Reserve require facilities that provide for training, administration, equipment maintenance, general storage, equipment and personnel parking, assembly of personnel, and all associated facilities to support these activities. Personnel involved to support operations and utilize the facility for training purposes would fluctuate but current estimates are 800-1000 personnel.

1.3 Objectives of the Action

The objective of this action is to provide facilities for the WAARNG and the Army Reserve management requirements while maintaining compatibility with other operations at FAFB and with a minimum of environmental impact.

1.4 Scope of the Environmental Assessment

This EA will evaluate, to the fullest extent possible, the environmental consequences of the proposed action and alternatives on the affected environment, as well as possible cumulative impacts from other reasonably foreseeable actions. The data obtained through completion of the EA will in turn be utilized to assist decision making authorities in making environmentally informed decisions. This EA is being completed in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969.

The evaluation will determine whether the proposed action would result in environmental impact significant enough to warrant preparation of an Environmental Impact Statement (EIS), or whether the action would qualify for a Finding of No Significant Impact (FONSI).

Resources to be considered include: air quality, water resources, noise, geologic resources, biological resources, cultural resources, infrastructure and utilities, land use, wastes and hazardous materials, safety and occupational health, and socioeconomic resources.

1.5 Summary of Key Environmental Compliance Requirements

National Environmental Policy Act of 1969 (NEPA), as amended

NEPA requires all Federal agencies to use a systematic, interdisciplinary approach in decision making which may have an impact on man's environment. Therefore, NEPA directs agencies to assess expected environmental impacts of all Federal actions and proposals. In turn, this data must be considered in the decision making process. Compliance with NEPA is accomplished through the guidance outlined in 32 CFR 989, Environmental Impact Analysis Process (EIAP).

Other Environmental Statutes and Regulations

To comply with NEPA, this analysis considers other relevant environmental statutes and regulations. According to the Council on Environmental Quality regulations, requirements of NEPA must be integrated "with other planning and environmental review procedures required by law or by agency so that all such procedures run concurrently rather than consecutively." Appendix C contains examples of relevant laws, regulations, and other requirements that are often considered as part of the analysis.

Chapter 2: Description of Proposed Action and Alternatives

2.1 Introduction

The proposed action is to provide facilities to support operations of the combined units of the U.S. Army Reserve and Washington Army National Guard (WAARNG), herein called Armed Forces Reserve Center. The principal operational requirements are for a campus-like facility that provide for assembly, training, equipment parking and maintenance, personnel parking, and associated support facilities. The concept design of the compound calls for the following facilities:

- 1) Armed Forces Reserve Center (AFRC) – A main building approximately 80,900 square feet (s.f.) for office space, assembly hall with kitchen, classrooms and a distance learning center, weapons training simulator, and support areas such as toilet, mechanical ,electrical, telecommunications, and IT.
- 2) Unit Storage Area – A facility adjacent to the AFRC, approximately 23,800 square feet, that would house caged storage areas for organizational equipment.
- 3) Maintenance Shop/Storage Area (OMS/AMSA/FMS) – Several bays and support area for equipment maintenance and training, approximately 34,800 square feet. Required for these operations is a controlled waste and flammable material storage area either co-located within or in a separate facility near the shop area.
- 4) Unheated Storage Area – A covered area for supply and equipment storage not requiring a controlled climate, approximately 9,600 square feet.
- 5) Military Equipment Parking Area – The area is located near the Maintenance Shop/Storage Area, approximately 61,600 square yards (SY). Two wash racks are to be located in this area and would require a compliant solids interceptor and oil-water separators.
- 6) Personnel Parking Area – approximately 16,800 SY.
- 7) Additional facilities include fencing, landscaping and other site improvements, and tie-in with FAFB utilities and storm water system. Also, an option exists to provide an approximately 87,800 s.f. Unheated Storage Facility. This facility would serve as covered vehicle parking but, would not be an enclosed facility.

2.2 Selection Criteria for Alternatives

Viable alternatives must consider requirements including safety, cost effectiveness, efficiency, Armed Forces Reserve Center operations, and compatibility with other FAFB operations. Environmental criteria considered must include: air quality, water resources, geologic resources, biological resources, cultural resources, infrastructure and utilities, land

use, noise, wastes and hazardous materials, pollution prevention, socioeconomic resources, safety and occupational health; and environmental management.

2.3 Alternatives Considered but Eliminated from Detailed Study

Several location alternatives were considered and eliminated based upon anticipated conflicts with requirements stated in Section 2.2. These alternative locations were:

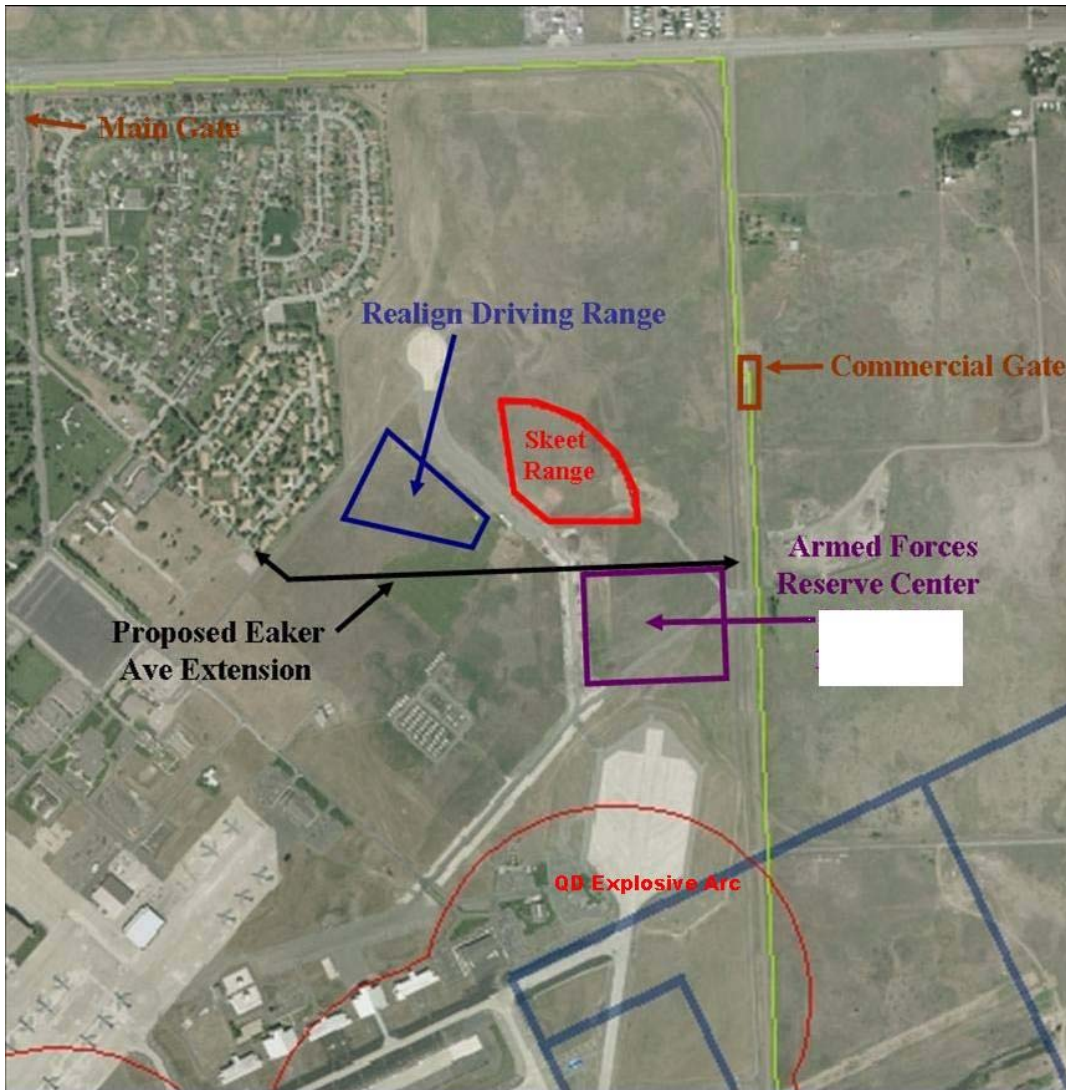
- 1) Between Grant Street/ O'Malley Avenue on both sides of Patriot Boulevard
- 2) North of McFarlane Road/ West of Graham Road, an excess Army Capehart Family Housing Area
- 3) South of the Hospital, an excess Army Capehart Family Housing Area and North of El Paso Avenue

Alternatives 2 and 3 require demolition of excess residential housing and require acceleration and/or change in the execution of the Military Housing Privatization program. Alternative 1 is a smaller area than the proposed location and may have unduly constrained future mission expansion. These reasons were viewed as not compatible with the Armed Forces Reserve Center mission and cost of implementation was far above the cost of the proposed alternative.

2.4 Description of Alternatives

Alternative 1 is the preferred alternative. This alternative consists of construction of facilities as listed in Section 2.1 and located north of Gate 23 Road (see Figure 1). The compound area encompasses about 30 acres and is convenient to the Rambo Entry Gate. The compound will require realignment of Gate 23 Road routing Base access from the north and along the western edge of the new Armed Forces Center.

Figure 1. Alternative 1 – Preferred. Location of Armed Forces Reserve Center



Alternative 2 is to assimilate WAARNG and Army Reserve operations into existing infrastructure. This would require consolidation, sharing, and relocation of 92 Air Refueling wing (92ARW) functions to provide for the space needed for the newly combined Armed Forces Reserve. Several warehouse buildings and associated parking areas could accommodate the relocation. These buildings are currently occupied by existing mission related functions.

The No Action alternative serves as a baseline against which other alternatives can be evaluated. This alternative is required under the Council on Environmental Quality regulations. Under the No Action alternative, the BRAC relocation of the WAARNG and the Army Reserve to Fairchild AFB would not be accomplished.

Chapter 3: Affected Environment

3.1 Introduction

Fairchild AFB is an Air Mobility Command (AMC) Base located in Spokane County, eastern Washington, approximately 12 miles west of the city of Spokane. Communities located near the base include Airway Heights and Medical Lake. Fairchild AFB consists of a main installation and several satellite installations located elsewhere west of Spokane. The main installation consists of 5,823 acres and 1,259 buildings. Fairchild AFB is a tanker hub, 92 Air Refueling Wing (92ARW), and operates currently 35 KC-135 aircraft with 56 aircrews. FAFB personnel average about 4500 military and civilians. In addition to 92 ARW, 15 tenant units, including Air Education and Training Command (AETC) Survival School, 141st Air Refueling Wing, and Washington Air National Guard (WANG) occupy the Base.

3.2 Air Quality and Noise

Air Quality

Of the six criteria pollutants identified by the U.S. Environmental Protection Agency (EPA), two are of concern in Spokane County, specifically carbon dioxide (CO) and particulate matter (PM). Motor vehicles are the largest contributors to CO, with the highest concentrations occurring during the winter months. PM comes from a variety of sources including dust from unpaved and paved roadways, construction activities, gas and diesel engines, and indoor/outdoor burning.

Spokane County is within the Eastern Washington-Northern Idaho Interstate (EWNII) Air Quality Control Region. Spokane County is classified as being in attainment with all criteria pollutants (USEPA 2004b). CO and PM Attainment Plans rely on control strategies for tracking vehicle miles traveled; vehicle emissions inspection and maintenance programs; oxygenated fuels; transportation conformity; control measures for residential wood combustion and control strategies for windblown dust.

The Spokane County Air Pollution Control Authority works with FAFB in monitoring and implementing the installation's stationary source permits and emissions inventory. Emissions from mobile sources are not tracked on FAFB. FAFB is classified as a synthetic minor pollution source and has voluntary limits on air emissions. There are various stationary combustion sources at FAFB, mostly from boilers and generators; volatile sources from organic liquids, and miscellaneous particulate sources from abrasive blasting, woodworking equipment, and a dust collection system designed to capture emissions from a firing range.

Regional wind patterns generally transport air pollutants eastward from FAFB toward the Spokane Valley. Winter months have the highest incidences of degraded air quality due to wood burning stoves and vehicular emissions. These emissions are exacerbated by temperature inversions, stagnant air reduces air quality, and valley topography.

Noise

Locally, noise sources are general construction, vehicular movement along Interstate 90, U.S. Route 2 and secondary commuter roads, and aircraft at FAFB, and Spokane International Airport. Other sources with varying frequency are the Spokane Raceway along Hayford Road and firing range activities on FAFB and along the Spokane River. Residential development is increasing in the area, mostly of rural character although several large high density housing areas are under construction within five miles of FAFB and within ½ mile of Spokane Raceway. Highest density housing is located in the communities of Medical Lake and Airway Heights located about 2 miles from FAFB. FAFB is currently updating the Air Installation Compatible Use Zone study that identifies the range of noise impacts to local communities relative to training flight operations (e2m 2006).

3.3 Water Resources

Fairchild Air Force Base is located at the hydrologic head of three watershed basins; the Lower Spokane River, Hangman Creek, and the Palouse River. FAFB contains several open drainage ditches, storm water detention ponds/swales, and isolated wetlands. The topography is nearly flat to undulating with no indication that surface runoff is conveyed by surface flow to stream channels within these watersheds. The primary function of surface water features on the Base is temporary containment of storm water and groundwater recharge. The general area is represented by varying depths of groundwater perched by hard basalt bedrock or lenses of clay in surficial glacial melt water deposits. Depths range from 5 -40 feet. Two deep aquifers are the primary source of water to surrounding communities, residences, and agriculture. Well depths range from 100-200 and 400-500 feet.

No surface storm water catchment is indicated in the immediate vicinity of the proposed facility. Underground conveyance is within the vicinity. Runoff from the undeveloped area in Alternative 1 is currently dispersed by overland flow and infiltrates rapidly into sandy soils. Engineered catchment and conveyance of storm water is designed elsewhere on Base and drains to a passive treatment system of settling ponds prior to being routed to an adjacent agricultural field. Surface waters are infiltrated into native soils within about one half mile of the settling ponds.

The FAFB Storm Water Pollution Prevention Plan (SWPPP) was written to identify existing and potential sources of storm water pollution. The current systems are in compliance with all state and federal storm water regulations. As a Air Force and Base standard, a site SWPPP is required for all construction activities.

FAFB has a contract with the City of Spokane for treatment of sanitary sewage. The sewage is routed to the Spokane Regional Wastewater Treatment Facility located on the Aubrey L. White Parkway adjacent to the Spokane River. Treated water (tertiary treatment) is then discharged into the Spokane River. Much of the Spokane River presently violates Washington State water quality standards for various pollutants from many different sources. Currently, Total Maximum Daily Load (TMDL) plans are in place to clean up the Spokane River water. TMDLs for dissolved oxygen and PCBs are currently in place, while TMDLs would most likely be developed for chromium and temperature.

3.4 Geologic Resources

General topography of FAFB is flat and the average elevation is approximately 2340 feet. Fairchild is located on an intermountain plain and is situated on the channeled scablands of the Columbia Basin. To the south of the Base, the terrain blends into the rolling, deep loess topography of the Palouse that extends southward to the Snake River. The channeled scablands were formed from catastrophic floods during ice dam breaks in glacial times and are a major part of the landscape from the Spokane area southwestward to Moses Lake and as far south as the Columbia River.

Soils in the channeled scablands can be quite variable and contrasting. Typically soils consist of shallow regolith underlain by basalt bedrock with a thin layer of volcanic ash influenced loess on the surface. Deeper soils occur associated with glacial flood and melt water deposits of sand, silts, and clays. Remnant clayey lacustrine materials or deeply weathered basalt bedrock often perch water tables in the area.

The proposed project area has been disturbed and altered by previous earth-moving activities, used as storage area for rock and debris, and a portion is a mowed field that supports grasses and noxious weeds. Natural Resource Conservation Service (NRCS 2006) mapped the Cheney-Uhlig map unit in the area. These soils are characterized as sandy and gravelly glaciofluvial deposits with loess and volcanic ash surface layers. Soils are well drained, very deep, and have moderate over very rapid permeability.

3.5 Biological Resources

Improved and semi-improved areas make up 80% of FAFB and are mostly found in the northern portion of the base. Non-native landscaping and groundcover in the improved areas have removed much of the historic vegetative cover. The semi-improved areas are primarily composed of mowed non-native and native grasses. The remaining 1,000 acres is undeveloped land that contains open grass fields, stands of ponderosa pines, wetland areas, native grassland and shrubs, and areas of mixed native and non-native grasses and invasive weeds.

The proposed project area is managed as semi-improved, non-irrigated and is vegetated with introduced and native grasses. Abundant noxious weeds dominate much of the area. The area is mowed to reduce weed seed dispersal and to minimize the hazard of bird foraging near the runway.

In general, wildlife habitat and species present within the project area and at Fairchild AFB are typical of urban and suburban areas and open pine savanna. Migratory birds and raptors common to eastern Washington frequent the area. Small mammals include mice, voles, coyote, marmot, and pocket gophers. A small deer herd is isolated within the boundary fence, numbers about 40, and roams the southern end of the Base.

Silene spaldingii and *howellia aquatilis* are threatened plant species, both federally and state listed. They occur in the southern portion of the Base, in an unimproved area well away from

the proposed project area and within a designated conservation area. The community type, *pinus ponderosa/symphocarpus albus* is listed as a rare community type by the state of Washington and occurs in isolated pine stands in the southern portion of the Base, well away from Alternative 1's proposed project area. No other threatened or endangered species have been identified by surveys conducted by the Nature Conservancy, the Washington State Department of Natural Resources, or Eastern Washington University.

Several bird species, designated as Federal species of concern, state candidate species, state monitor species, or state sensitive species have been sighted or are known to have nested near or on FAFB. Most of these species are migratory in nature. These species include: golden eagle, burrowing owl, grasshopper sparrow, western bluebird, red-necked grebe, great blue heron, turkey vulture, Caspian tern, black tern, and osprey. The white-tailed jackrabbit, a state candidate species, is known to occur adjacent to FAFB but has not been sighted for many years on the Base. Columbian ground squirrel and American badger, both being carefully monitored by the Washington Department of Fish and Wildlife, have been documented as occurring at FAFB but recent surveys (EWU 2005) have not indicated their presence on Base. The likelihood of these species nesting or denning in the area proposed by Alternative 1 is very small. There are no trees or structures to accommodate nesting and the level of disturbance from human activity is relatively high in the area.

Over 200 acres of wetlands occur at Fairchild AFB. Nearly all of the wetlands are found in the southern portion of the base, far from the proposed project location.

3.6 Cultural Resources

Cultural resources include prehistoric and historical archaeological sites, buildings, structures, districts, artifacts, objects, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, or religious purposes. Five complete historical and archaeological surveys of installation lands have been completed at Fairchild AFB. Findings include six archaeological sites, one of which may be eligible for nomination to the National Register of Historic Places. Two WWII and two Cold War buildings may be eligible for inclusion in the National Register. One additional WWII building is eligible for nomination to the National Register. None of these sites or structures are located in the region of influence of the proposed project. There are no documented sites or areas of known cultural importance to local Native American tribes on base holdings and the potential for discovery of such sites is low. The probability is also low that undisturbed, significant archaeological resources, including human graves, would be discovered on Fairchild AFB during future construction.

No known prehistoric or historic resources have been identified and no known potential for historic resources has been identified in cultural surveys of the proposed project site.

3.7 Infrastructure and Utilities

Infrastructure consists of the systems and physical structures that enable a populace to function and to accommodate mission operations. On FAFB infrastructure includes a

transportation network, utilities, communications, airfield and support buildings, water supply, sanitary systems and wastewater, administrative and maintenance buildings, and solid waste disposal.

The site of the proposed action is an undeveloped area and contains nearby buried infrastructure and transportation network. Alternative 1 proposes to tie into existing support infrastructure. The current through road to the main base from the Rambo Gate will be rerouted and access to Gate 23 Road will be by way of Sport Range Road from a new road constructed to the north of the new AFRC compound. Figure 2 illustrates locations of existing utilities and infrastructure proximate to the proposed location for Alternative 1.

The proposed siting of AFRC is near the end of the airfield just north of an aircraft parking area called the “Christmas Tree”. The area is used intermittently and has the requirement to accommodate the existing aircraft as well as emergency use of larger aircraft.



Figure 2 Infrastructure and Proposed Site Location of AFRC – Alternative 1

3.8 Land Use

Land use refers to real property classifications of conditions and uses either present or in planned future goals. The objective of land use planning is to ensure orderly growth and compatible uses.

Locally, Fairchild AFB is surrounded primarily by agricultural uses, with increasing residential development. The nearest town, Airway Heights, is approximately two miles to the east. State Route 2 moves local and regional traffic from the City of Spokane and Airway Heights to local roads, to FAFB and to the west.

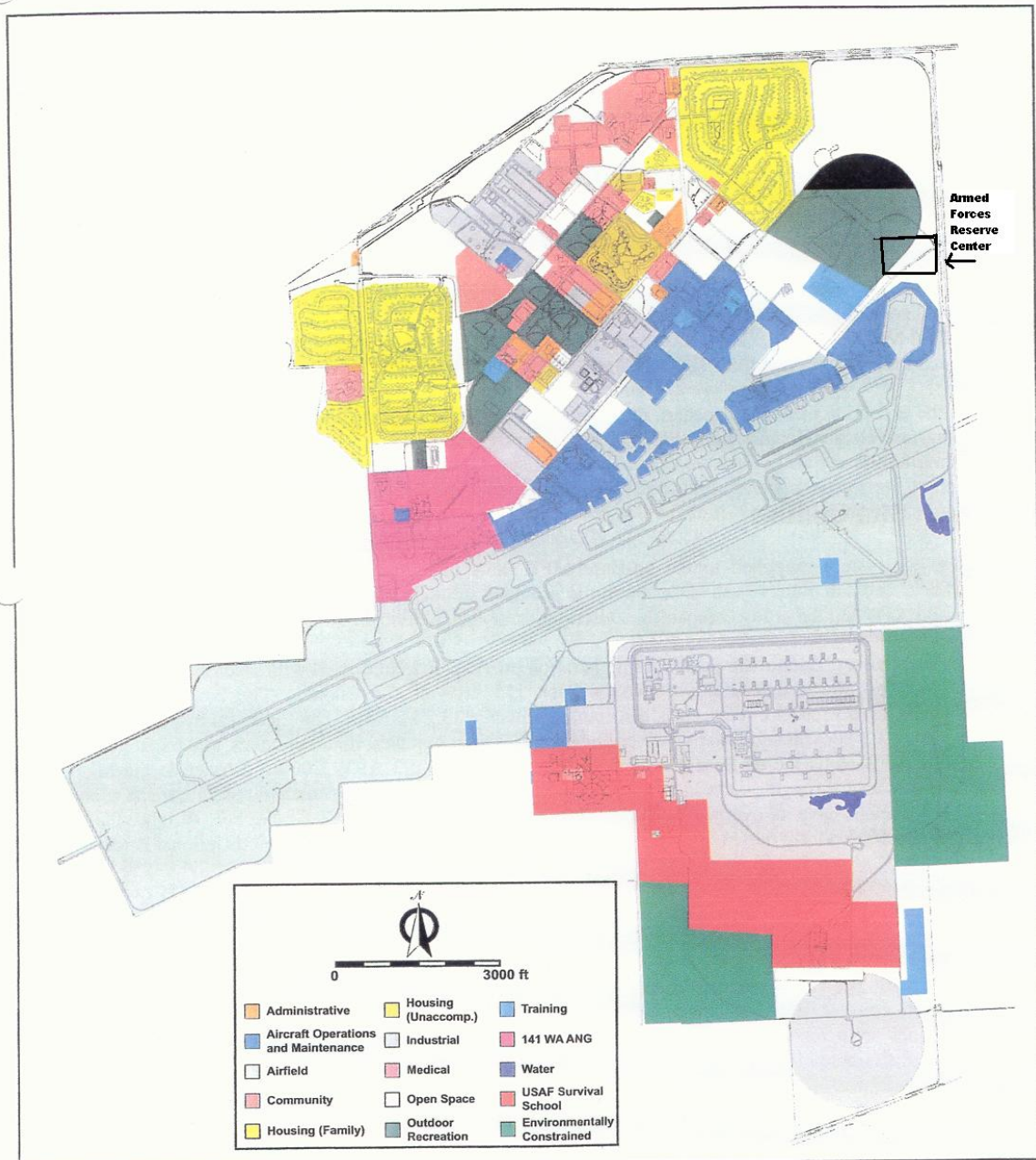
FAFB land use classifications are: airfield/industrial, community, administrative, open space, outdoor recreation, training, Survival School Area, and Washington Air National Guard. Constraints to land uses are safety zones around potentially explosive areas, wetlands, threatened and endangered species and habitats, cultural resources, and other areas that present public hazards such as contamination sites. Table 1 summarizes the various existing and planned land uses and their area on FAFB. Figure 3 shows the locations of land use classifications for FAFB.

Table 1: Current Land Use/Constraints at FAFB

Land Use Category	Current Use (acres)	Planned Future Use (acres)
Administrative	83	242
Airfield, Maintenance, Industrial, Training	2022	2082
Community	473	742
Outdoor Recreation	203	113
Survival School	90	238
WA Air National Guard	65	107
Wetlands	212	212
Conservation Area	72	72

FAFB main installation is about 4500 acres. The area designated for future use is 3808 acres. The remaining 700 acres is occupied by roads, the “wildlife area”, and other lands available for development. The proposed area for Alternative 1 is within one of the larger undeveloped parcels on FAFB.

Figure 3. FAFB Land Use Classifications and Proposed Armed Forces Reserve Center Location



3.9 Wastes, Pollution Prevention, and Hazardous Materials

Hazardous material is defined as any substance with physical properties of ignitability, corrosively, reactivity, or toxicity that could cause an increase in mortality, serious irreversible illness, and incapacitating reversible illness or that might pose a substantial threat to human health or the environment.

Hazardous materials and waste at FAFB include flammable solvents, fuels and lubricants, paint/coating, stripping chemicals, waste oils and solvents, contaminated fuels and lubricants, waste paint-related materials, disposal of legacy building materials such as asbestos and lead based paint. FAFB produces more than 1,000 kg of hazardous waste per month and is considered a large quantity hazardous waste generator. Approximately 75 percent of wastes are generated from aircraft maintenance activities, 10 percent from motor vehicle maintenance activities, 10 percent from civil engineering activities, and 5 percent from other sources. There are 187 satellite accumulation points on the installation and one 90 day accumulation site. Waste containers are picked up and transported to an off-installation licensed Treatment, Storage, and Disposal Facility.

Hazardous Materials. Air Force Instruction (AFI) 32-7086, *Hazardous Materials Management* establishes procedures and standards governing procurement, issuance, use or disposal of hazardous materials and tracking and recording keeping for public safety and for compliance with all laws and regulations. FAFB monitors environmental permits, storage, spill prevention and response.

Hazardous Waste. AFI 32-7042, *Solid and Hazardous Waste Compliance* directs roles and responsibilities with waste stream management including planning, training, emergency response, and pollution prevention. Hazardous wastes generated at FAFB include flammable solvents, contaminated solids, stripping chemicals, used oils, waste paint-related materials, and other miscellaneous items.

Hazardous and toxic material procurements on FAFB are approved and tracked by the appropriate members of the hazardous materials team. Base Supply personnel receive, inspect, distribute, and track hazardous materials. In 1996, a "pharmacy" system for the distribution of hazardous materials was implemented at FAFB. The purpose of the pharmacy system is to minimize and control the use of hazardous materials in order to minimize the generation of hazardous wastes. In addition, current inventories of hazardous materials are assessed to determine if less-toxic alternatives exist. Bench stock quantities of materials are distributed to authorized recipients on an as needed basis. Any unused portions of the hazardous materials are returned to the issue point to be made available for other users.

Pollution Prevention. AFI 32-7080, *Pollution Prevention Program*, implements the regulatory mandates in the Emergency Planning and Community Right-to Know Act, Pollution Prevention Act of 1990; EO 12856, Federal Acquisition, Recycling, and Waste Prevention; and EO 12902, Energy Efficiency and Water Conservation at Federal Facilities. Various plans prescribe management actions including a waste-reduction program; the NPDES permit program, and spill prevention control and countermeasures.

Asbestos and Lead Base Paint Containing Materials. AFI 32-1052, *Facilities Asbestos management* provides direction for asbestos management at USAF installations. Various policies and regulations including the Residential lead-base paint hazard Reduction Act of 1992 provide direction on management of lead base paints and materials containing lead base paint. Procedures are in place to test and abate on all proposed project sites where these materials are suspected.

3.10 Safety and Occupational Health

All applicable standards, such as those required by the Occupational Safety and Health Act (OSHA) are strictly followed at FAFB. Base personnel are regularly briefed on hazards and safety concerns existing in their particular workplace. All contractors performing construction activities are responsible for following ground safety and OSHA regulations. Industrial hygiene programs monitor human exposure to hazardous materials and safety equipment and procedures are continually inspected.

There are several areas at FAFB that are constrained by explosive clear zones. These zones are associated with the Alert Area, Explosive Combat Aircraft parking, and the Munitions Storage Area. Transportation routes for explosives also are present in the area using Gate 23 Road.

Range sites on FAFB contain various munitions, unexploded ordnance (UXO), and Chemical Agent Identification Sets (CAIS). Surface disposal sites have been removed. However, munitions, UXO, and CAIS still can be found below the ground surface near and adjacent to range sites.

The proposed project area is south of the Old Skeet Range, a small arms range, and to the east of a historic Target Butt 20mm caliber boresite range. All ranges are considered to be a distance away from the proposed site. Only incidental stray bullets may be found in the proposed area for Alternative 1. The range for ammunition used at the skeet range is about 700 feet and the direction of firing was to the north and east of the proposed project location. No firing points or target areas were located at the Target Butt site during a 2006 site reconnaissance conducted by Contract W9128F-04-D-0001-0038 (URS 2006). Both areas are thought not to have unexploded ordnances remaining (URS 2006). Thus, the potential hazard is minimal for lead exposure and none for UXO for the project area. Standard procedure when munitions are expected is for monitoring during construction and to implement mitigation as needed.

Potential hazard exists associated with jet blast near runway and parking facilities of aircraft. Based upon idle thrust requirements of KC135 aircraft, safe distance for operations is 400 feet away from the aircraft (based on UFC 3-260-01 and ETL 1110-3-394). Worse case estimates for larger aircraft requirements based upon take-off thrust are calculated at 900 feet.

3.11 Environmental Management (Environmental Restoration Program)

The purpose of the Air Force Environmental Restoration Program (ERP) is to identify, characterize, and evaluate past disposal sites and remediate contamination on its installations as needed to control migration of contaminants and potential hazards to ecological resources, human health, and the environment in accordance with CERCLA requirements. A total of 37 ERP sites are present at Fairchild AFB. ERP site SS-39, a TCE plume, underlies much of the runway area and to the north toward military housing. However, there appears to be a geologic “dam” that keeps flow from moving eastward toward the area of influence of the

proposed project. This plume is located 40-50 feet below the ground surface. Fairchild AFB requires specific procedures be followed if contaminated soil is discovered during excavation.

No contamination of groundwater or soils has been identified directly below the area proposed in Alternative 1. Renovation to existing facilities in Alternative 2 may encounter or overlay an identified ERP site. ERP sites have been identified and most have been remediated. Processes are well in place to survey, abate, and protect from exposure to humans or further exposure to the environment if contamination is encountered.

3.12 Socioeconomics

Socioeconomics are defined as the basic attributes and resources associated with the human environment, particularly population and economic activity. Federal Actions to “Address Environmental Justice in Minority Populations and Low-Income Populations” directs Federal agencies to address environmental and human health conditions in minority and low-income communities. The general purposes of this Executive Order are:

- To focus attention of Federal agencies on the human health and environmental conditions in minority communities and low-income communities with the goal of achieving environmental justice;
- To foster non-discrimination in Federal programs that substantially affect human health or the environment; and
- To give minority communities and low-income communities greater opportunities for public participation in and access to public information on matters relating to human health and the environment.

Described below are two categories, social and economic condition and environmental justice.

Social and Economic Condition. FAFB is approximately 12 miles west of Spokane, Washington, in Spokane County. Population of Spokane County in 2000 was 417,939 (U.S. Census Bureau 2000). Between 1990 and 2000, Washington’s population increased by 21 percent. In the same period of time, Spokane grew by 16 percent. The top industry is education, healthcare, and social services. Public administration is the second highest area of industry, regionally. And as would be expected, there is a larger portion of the population in the Spokane area employed by the Armed Forces compared with the State.

In 2000, the unemployment rate for the region was 4.6 percent which was slightly higher than for the State at 4.1 percent. The region has a lower median household income and per capita income and a higher percentage of individuals below the poverty threshold than for the State. Education level is slightly higher for the region than for the state average.

FAFB is the largest employer in the Inland Northwest and employs approximately 5,400 military and civilian employees. The annual payroll of FAFB is approximately \$203 million and it is estimated that FAFB indirectly creates an additional 2,150 jobs and \$82 million in payroll from support jobs throughout the community.

Environmental Justice. The following was indicated following as a result of the 2000 Census. Areas within and nearest FAFB have the highest population of African Americans than for the Spokane area or the State. The area southeast of FAFB had the highest percentage of individuals below the poverty level and the lowest per capita income.

Chapter 4: Environmental Consequences

4.1 Introduction

This section describes the anticipated environmental consequences or impacts that could result from implementing the proposed actions. The significance of an action is analyzed in several contexts including several scales as needed, short term and long term impacts, direct and indirect impacts, and cumulative impacts.

4.2 Air Quality and Noise

The environmental consequences to local and regional air quality conditions as a result of the proposed action is determined based upon the increases in regulated pollutant emissions relative to existing conditions and ambient air quality. A significant impact would be found if the action led to one or more of the following: 1) cause or contribute to a violation; 2) expose sensitive receptors to increased pollutant concentrations; 3) represent an increase of 10 percent or more of an affected emissions inventory; or 4) delay attainment or exceed any evaluation criteria established by a state implementation plan.

Noise impact analysis typically evaluates potential changes to the existing noise environment that would result from implementation of a proposed action. Potential changes in the noise environment can be beneficial or adverse.

4.2.1 Alternative 1 – Preferred

Regulated pollutant emissions from the proposed action would not contribute to or affect local or regional attainment status. The proposed action would temporarily result in a slight increase in air pollutant levels in the vicinity during construction activities. Off-site and on-site effects from dust would be abated through dust control measures during construction such as the use of tackifiers and watering of bare soil areas. Fugitive dust situations would be rare and readily dissipated by the westerly flow of winds normal for the area during the construction season. The proposed action has a no net increase in commuter and personal vehicular emissions regionally. Traffic would be redirected to FAFB in lieu of locations near downtown Spokane where existing Army Reserve and Washington Army National Guard units are located presently.

Calculations for cumulative impacts on a five year construction program at FAFB result in a finding of far less than the increase of ten percent emissions in the affected emissions inventory for FAFB. A worse case scenario model suggests that impacts on dust and other emissions would be far below a significant level. (e2m 2006). This five year program is far more substantial than the AFRC project.

It can be concluded that construction and operations of a new AFRC facility would not have adverse impacts to air quality.

A short term impact to the noise environment would occur during construction from heavy equipment. An increase in vehicular noise in the immediate area would occur as a result of the new land use associated with Armed Forces equipment, maintenance, and training operations. This noise is not expected to be different than noise already occurring at FAFB associated with industrial and maintenance activities. Ambient noise levels are not expected to increase over existing levels. More vehicular traffic would use Gate 23 road as personnel commute to work at the Armed Forces Reserve Center. Noise levels at certain times of the day may increase in the area where industrial and administrative activities already exist. No long term impact to health or quality of life from noise is anticipated with this action.

4.2.2 Alternative 2

No net increase of pollutant emissions would result from this alternative. Some demolition and renovation of existing structures may result in temporary increases in dust emissions. The emissions are expected to be less than Alternative 1 due to less ground disturbance required by this Alternative.

A short term impact from noise during renovations of existing facilities may occur in the immediate area. Quality of work environment may be impacted temporarily. Increase in vehicular traffic would be dispersed on FAFB and no appreciable difference in associated noise levels is expected. No long term impact to health or quality of life is anticipated with this action.

4.2.3 No Action Alternative

The No Action alternative would result in unchanged conditions at FAFB. The base would continue to operate in compliance with all permits, with minimal impact to air quality.

4.3 Water Resources

Evaluation criteria for impacts on water resources are based on water availability, water quality, and impacts to beneficial uses. Standards are established by federal and state law.

4.3.1 Alternative 1 - Preferred

Surface Water Quality: Storm water runoff from construction activities would disperse and infiltrate into open fields adjacent to the project site. Runoff from stockpiles would be contained to control the amount of storm water sediment released during construction as designated by the project Storm Water Pollution Prevention Plan. After construction, parking areas are paved and runoff would flow through a catchment system to storm water ponds where sediments would filter out of storm water before being released to an adjacent agricultural field. There are no surface watercourses that connect to streams or waters of the State flowing from FAFB or specifically, the project site. No short term or long term, direct impacts would occur as a result of the proposed action.

Water Availability. Water is supplied by wells located along the Spokane River and pumped to FAFB. Water availability from these wells is expected to be adequate for the additional demand of personnel and the additional mission activities. FAFB has been undergoing a water conservation effort and has realized a decrease from 6 million gallons to 4 million gallons in the last several years. This decrease suggests that there is at least a 2 million gallon surplus capacity which is ample supply for the additional operational requirements of the Armed Forces Reserve Center (or AFRC).

Groundwater. The proposed action would likely have no effect on area aquifers. Although FAFB does have a well in the area aquifer, the main supply of water comes from the Hangman aquifer upstream from the Spokane River. The West Plains well is only used as an emergency supply. The previous section demonstrated that the wells along the Spokane River have adequate capacity to supply the Bases needs. Increases in groundwater recharge associated with increased impervious surfaces would be expected to be minor or cause a slight elevation seasonally. Water quality should not be affected adversely as storm water flow is filtered through soil material prior to reaching the water table. And, required for all vehicular maintenance activities are oil-water separator treatment facilities.

Wetlands. There are no wetlands within or adjacent to the project area.

During construction of the facility, there is a higher potential for water contamination. To minimize this risk, the contractor would be required to prepare and implement a Storm Water Pollution Prevention Plan prior to construction. This plan would require approval from the Environmental Flight, to ensure compliance with appropriate regulations. Such a plan requires the use of best management practices to protect water quality. When the above stipulations are met, there should be no significant water quality impacts during construction.

4.3.2 Alternative 2

There should be insignificant and immeasurable change or effect to water resources as a result of this Alternative. Alternative 2 does not increase impervious surfaces or add additional storm water connection to the existing system.

4.3.3 No-Action Alternative

The water quality and availability environment would remain the same as baseline conditions. There would be no potential for water quality impacts during construction, since no such activity would occur. FAFB would continue to comply with local, state, and federal regulations.

4.4 Geologic Resources

4.4.1 Alternative 1 - Preferred

The proposed action would result in considerable ground disturbance. Potential impacts would be mitigated by use of best management practices including weed control and revegetation. All construction activities are guided by Base Construction Standards which include environmental protection standards. The general area is flat lying which minimizes hazard and increases potential for compliance.

Earthwork would be planned and conducted in a manner to minimize duration of exposure of unprotected soils. Work would be conducted in accordance with best management practices for erosion control, as outlined by the Storm Water Pollution Prevention Plan for the proposed project. Landscaping of exposed surfaces following completion of construction would minimize the potential for erosion. For these reasons, no significant geologic, physiographic, or soil impacts are anticipated as a result of the proposed activities.

A positive effect is anticipated in weed control. An area inundated by noxious weeds would be converted to hard infrastructure and irrigated landscape reducing the amount of area contributing to weed seed dispersal by thirty acres.

4.4.2 Alternative 2

Alternative 2 proposes no ground disturbance but renovation to existing infrastructure and relocation of personnel. This action results in a no net change in existing geologic resources.

4.4.3 No-Action Alternative

The No Action alternative results in no change in existing geologic resources.

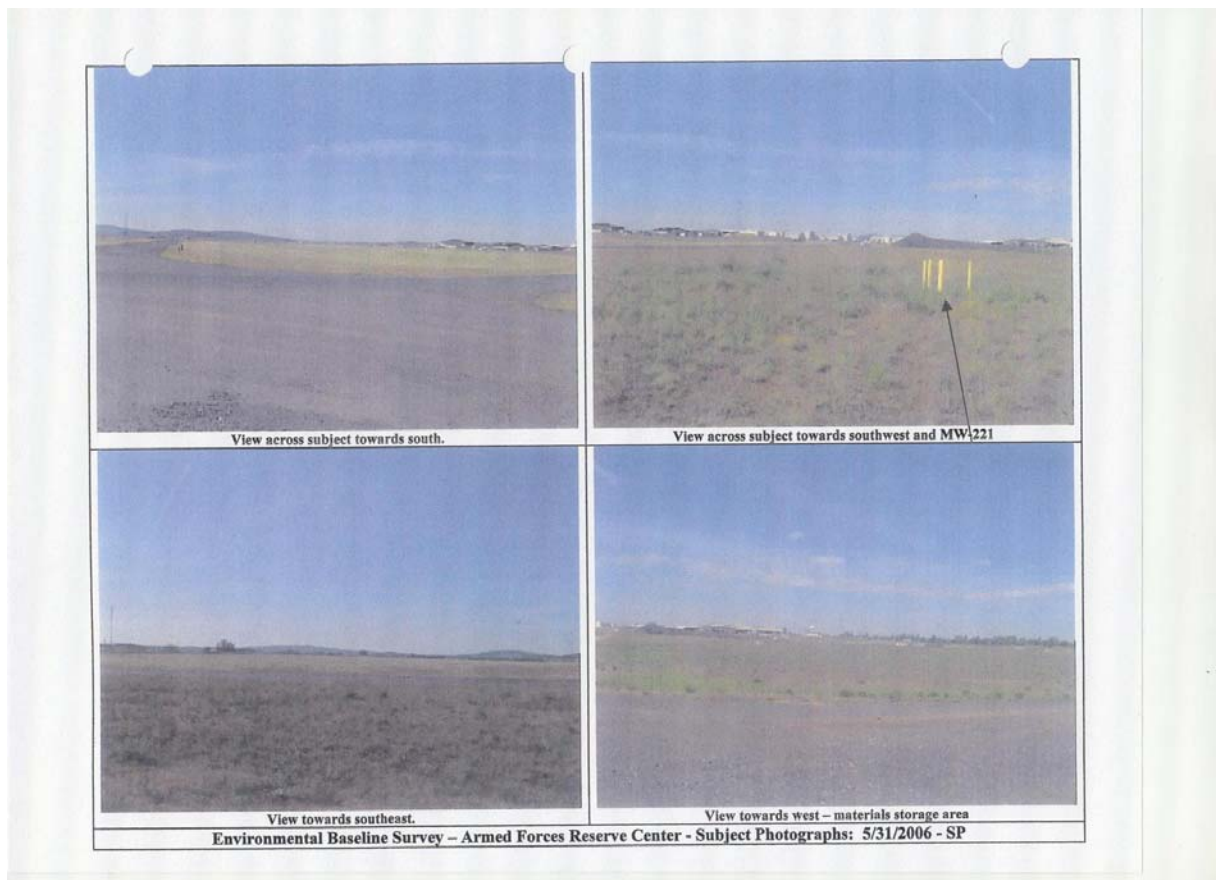
4.5 Biological Resources

4.5.1 Alternative 1 - Preferred

The proposed action would result in the loss of approximately 30 acres of unimproved, dry grassland and open space. The pictures below in Figure 4 were taken of the existing site in July 2006. The existing quality of the habitat is fair to poor. Some forage of small

mammals and birds occurs in the area currently. The area is kept in a mowed condition to discourage birds from foraging in the area to reduce the safety hazard to aircraft and their crews. There is over 700 acres of higher quality, unimproved lands with approximately 200 acres of wetlands in the southern portion of the Base for wildlife to displace to from the proposed area. There are no federally or state listed species occurring in the project area. There are no known nest sites of protected species within the region of influence of construction noise. A positive net gain would occur by remediation of noxious weeds in the immediate area and reduction of seed dispersal from the area. Therefore, no significant adverse effects to wildlife or vegetation are anticipated as a result of the proposed action.

Figure 4. Setting for Proposed Location – Alternative 1



4.5.2 Alternative 2

Alternative 2 proposes no ground disturbance but renovation to existing infrastructure and relocation of personnel. The location would be in industrial and administrative areas already existing. In contrast with Alternative 1, most biological resources are in irrigated landscaping and urban community parks and include mostly small bird species that thrive

in those settings. This alternative results in a no net change in existing biological resources.

Under this alternative there would be no loss of unimproved grassland that provides foraging opportunities for bird and small mammals. No change would occur from the existing situation.

4.5.3 No-Action Alternative

The No Action alternative results in no change in existing biologic resources.

4.6 Cultural Resources

Impacts on cultural resources are addressed under Section 106 of the National Historic Preservation Act and 36 CFR 800. Adverse impacts on cultural resources might include physical alteration, damage, or destruction of all or part of a resource; alteration of characteristics of the surrounding environment that contribute to the resource's significance; introduction of visual or audible elements that are out of character with the property or that alter its setting; neglect of the resource to the extent that it deteriorates or is destroyed; or the sale, or transfer, or lease of the property out of agency ownership without adequate legally enforceable restrictions or conditions to ensure preservation of the property's historic significance.

4.6.1 Alternative 1 - Preferred

No National Register of Historic Places (NRHP) eligible archaeological resources have been documented within or near the region of influence of the proposed project. According to the FAFB Integrated Cultural Resources Management Plan (ICRMP), the probability is low that undisturbed, significant archaeological resources, including human graves, would be discovered during future construction. The ICRMP sets forth standard procedures that must be followed in the event any type of archaeological site is discovered during the course of earth-disturbing activity on base. The proposed action is not expected to result in any effects to archaeological resources on FAFB.

No NRHP-eligible historic resources are located within the region of influence of the proposed structure. The proposed action would not result in the demolition or alteration of any historic properties or structures. There would be no potential impacts to historic structures.

There are no documented sites or areas of known cultural importance to local Native American tribes at FAFB. Potential is low for discovery of such sites. The proposed action will be implemented in accordance with the Fairchild AFB ICRMP, which specifies

notification procedures applicable to Native American groups. The proposed action is not anticipated to impact Native American concerns.

4.6.2 Alternative 2

Alternative 2 assimilates the WAARNG and Army Reserve mission into existing buildings. No NRHP eligible historic buildings or resources would be associated with relocation of the WAARNG and Army Reserve. Renovation would take place in older buildings used for similar purposes and have already been significantly altered. No earth moving is required with this alternative and carries no risk in disturbing buried historic resources.

4.6.3 No-Action Alternative

There would be no potential effects relating to cultural resources if the no-action alternative is chosen. No earth-moving would be completed; therefore, no unknown cultural resources could potentially be discovered. FAFB would continue to be managed as outlined in the ICRMP.

4.7 Infrastructure and Utilities

Effects on infrastructure are evaluated based on their potential for disruption or improvement of existing levels of service and additional needs for energy and water consumption, sanitary sewer and wastewater systems, and transportation patterns and circulation. An effect might be considered adverse if a proposed action exceeds capacity of the infrastructure or utility or disrupts service or operations.

4.7.1 Alternative 1 - Preferred

The proposed action constructs 80,900 square feet of administrative space and 58,600 square feet of storage and maintenance shop space. There would be approximately 78,500 square yards of parking and 9,600 square feet of unheated covered storage/parking. Over 800 - 1000 personnel would be relocated to the Armed Forces Reserve Center. Soldier units are divided among 3 drill weekends typically and it is projected that no more than 400 personnel would be in place on any given weekend. A smaller core of personnel would be in place on a continual basis. High use days are weekends when FAFB personnel are at a minimum. This new compound would tie into existing utilities such as communications, water, sanitary sewer, IT, and storm water. Existing services such as solid waste and hazardous waste management would be used by AFRC.

Sanitary Sewer: An upgrade and lining of the sanitary sewer system by 2007 would decrease substantial amounts of groundwater infiltration which would increase the amount of available volume capacity of the system. It is likely that this infiltration is far more significant in volume than the increase by the AFRC. Highest use days are on weekends

when other FAFB personnel are not present. During the temporary transfer of Grand Forks operations to FAFB, May 2005 to November 2005 flow increased from 400,000 gallons/day to a maximum of 750,000 gallons/day without adverse effects (Luders 2006). These operations transferred 425 personnel on a full time basis during weekdays. This comparison far exceeds the expected impact from the AFRC due to the pattern of use being primarily on the weekends.

Transportation Network. Once in operation, the AFRC would result in a substantial increase in commuter traffic to and through FAFB during scheduled drills. Congestion may not be experienced since the majority of personnel would be commuting on weekends not business days. Traffic would be concentrated at the north end of FAFB only. The weekly core personnel traffic may result in a larger traffic flow on Hansell Road and Gate 23 Road. Gate 23 Road and Hansell Road is currently mostly used for commercial traffic entering from the Rambo Gate and personnel commuting to the south side of the Base. The current traffic use is not at capacity and this increase in traffic would not bring these roads to capacity.

Siting of the AFRC in the proposed location (Figure 1) requires removal of a portion of Gate 23 Road which is currently primary access from Rambo Gate Road to the Main Base and is the operational route for materials supporting military operations. A new route will be constructed to the north of the AFRC which will connect to the existing Sports Range Road and back to existing Gate 23 Road. There is no effective change in distance to travel. Siting of the AFRC in this location does expose personnel present at the compound to traffic and materials transported using this new route. The highest use of the AFRC is one or two weekends a month with a permanent daily staff of no more than 30 personnel. This impact is no different than for other industrial facilities on Base.

Water. There would be an increase in use of water for irrigation of additional landscaping at the new facility and increase in human consumption due to the increase in number of personnel on Base. Landscape design standards call for reduced use of high water demand plantings. Capacity of FAFB water system should meet this increase in demand adequately. (See water resources discussion). There is no net increase for the Spokane area as the facility is relocating from within the area to FAFB.

Solid Waste. There would be an increase in solid waste on FAFB from this new facility. These increases would be assimilated through the existing disposal management without impact to existing services. There is no net increase for the Spokane area as the facility is relocating from within the area to FAFB.

Other Utilities. The facilities would tie into existing electrical, communications, and natural gas utilities. Since the largest influx of personnel is on weekend, demand should not impact capacity. There would be an increase in demand on weekdays to support the core personnel and their work needs at the facility.

Building Infrastructure. Construction of new building infrastructure greatly increases efficiency and mission effectiveness for the combined Armed Forces. New designs can accommodate the joint missions better than renovating and retrofitting older buildings.

The BRAC analysis suggests that consolidation of reserve units in the Spokane area, vacating old facilities, and construction of a new facility was a cost savings in a large defense context.

4.7.2 Alternative 2

Alternative 2 assimilates administrative space, storage, maintenance shop space, and parking into the existing infrastructure. Some areas would be renovated and others shared with other users.

Sanitary Sewer: Much of the discussion for Alternative 1 applies to Alternative 2. An upgrade and lining of the sanitary sewer system will decrease substantial amounts of groundwater infiltration which would increase the amount of available volume capacity of the system. It is likely that this infiltration is far more significant in volume than the increase by the AFRC. Highest use days are on weekends when other FAFB personnel are not present. The net increase is inconsequential and the pattern of use would more fully utilize the existing capacity. Use of this utility would be more concentrated in an existing developed infrastructure central to the Base. Some of the infrastructure is old and may need updating to manage increase demand flows.

Transportation Network. Once in operation, the AFRC would result in a substantial increase in commuter traffic to and through FAFB on exercise weekends and weeks. The largest traffic increases are on days when other FAFB personnel are absent. Although traffic would be routed through the core of FAFB, real congestion may not be experienced due to when the highest volume of traffic occurs.

There would be no requirement to reroute Gate 23 Road constructing a new access road to the north of its present location. There would be no change in current use of the transportation network for military operations.

Water. There would not be an increase in use of water for landscape irrigation as no new landscaping is needed in this Alternative. Increases would occur in human uses over existing. Capacity of FAFB water system should meet this increase in demand adequately. There is no net increase for the Spokane area as the facility is relocating from within the area to FAFB.

Solid Waste. There would be an increase in solid waste on FAFB as similar to Alternative 1. Solid waste generated would require use of existing disposal areas or new ones created to handle the additional volume. Increases would be assimilated through the existing disposal management without impact to existing services. There is no net increase for the Spokane area as the facility is relocating from within the area to FAFB.

Other Utilities. No additional tie in to existing electrical, communications, and natural gas utilities is required. Since the largest influx of personnel is on weekend, demand should not impact capacity. There would be an increase in demand on weekdays to support the core personnel and their work needs at the facility.

Building Infrastructure. Use of existing building infrastructure would require sharing of some areas with existing users, relocation and consolidation of other users, and renovations to accommodate AFRC mission needs. Sharing, relocation and consolidation of existing users would create work inefficiencies and a loss of quality of work environment. Maintaining security of equipment with sharing of work spaces would be difficult. This alternative may exceed the capacity of existing infrastructure to provide adequate work space for personnel. Consolidation, although cost efficient, may conflict or degrade services to the mission.

4.7.3 No-Action Alternative

All FAFB infrastructure conditions would remain the same as existing.

4.8 Land Use

The significance of potential land use impacts is based on the level of land resource sensitivity and compatibility with the proposed action. In general, a land use impact would be significant if it were to be inconsistent or in noncompliance with existing land use or stewardship plans or policies, preclude the viability of existing land use, or conflict with planning criteria established to ensure the safety and protection of human life and property.

4.8.1 Alternative 1 - Preferred

About thirty acres would be converted from semi-improved, open space land use to developed, administration and industrial use. Adjacent land use would remain semi-improved, open space to the north, east, and west. To the south, the land use is airfield and industrial. The change of use in the thirty acres serves to extend in a northeastern direction the large area of airfield and industrial land use. This change is compatible with land use policies and keeps large blocks of the same use in the same area.

The location of the proposed facility has been sited in accordance with FAFB General Plan (92ARW 2005).

The proposed location is near the north end of the runway and near a designated QD explosive arc zone. The original location was closer to these areas and moved to the present proposed location to reduce the safety hazard. The compound is designed with parking and storage areas at the nearest end to these areas of hazard.

The proposed use displaces an informal area where rock materials have been stored. There is adequate area within the remaining open space for materials to be stored.

4.8.2 Alternative 2

Alternative 2 assimilates use within the existing infrastructure and land use. Some changes in existing land use from administrative to industrial may be required to accommodate the area needed for shop space. This change is compatible with land use policies and keeps large blocks of the same use in the same area. The location of the proposed facility has been sited in accordance with the General Plan (92ARW 2005).

Increased safety hazard may exist with consolidating and sharing uses with existing uses. Personnel would need to learn new procedures and policies to accommodate this change.

4.8.3 No-Action Alternative

No action would result in any changes to current land use.

4.9 Wastes, Pollution Prevention, Hazardous Materials and Environmental Restoration Program

Impacts on hazardous materials and waste management would be considered significant if the proposed action resulted in noncompliance with applicable Federal and state regulations, or increased the amounts generated or procured beyond FAFB capacity to obtain permits or for disposal or the action exposed humans or the environment to adverse impact from contaminated ERP sites.

4.9.1 Alternative 1 - Preferred

Hazardous Materials and Waste and Pollution Prevention. The proposed action would require procurement and disposal of hazardous materials such as oils, fuel, paints, and solvents. Some construction materials may contain hazardous materials although it is anticipated that the amount of these materials are minimal during construction and use is temporary.

AFRC as other FAFB tenants would be required to follow all FAFB and Air Force environment management policies governing the procurement, use, and disposal of hazardous materials. These policies are in place to safeguard the public, personnel, and the environment.

Asbestos Containing Materials(ACM) and Lead-Based Paint(LBP). Specifications for the proposed construction and Air Force regulations prohibit the use of ACM and LBP for new construction. New facilities at AFRC would not contain these materials.

Environmental Restoration Program. There are no ERP sites identified within the thirty acres planned for construction of the proposed action. With all sites on military bases, contractors must prepare a health and safety plan to identify potential hazards. Base construction standards also require contractors to stop work and request an investigation if suspicious materials are uncovered. The only hazard identified is the potential for unspent

small arms munitions in soils may be a source of lead. The amounts are thought to be very small and not a significant health or safety hazard.

During construction of the facility, there is a slight chance that a hazardous materials spill could occur. As a precautionary measure, the construction contractor would be trained to take immediate action to contain any spill. The contractor would then be required to contact the Environmental Flight. The contractor would be held liable for the cleanup of any spill that may occur, in accordance with applicable regulations.

4.9.2 Alternative 2

Hazardous Materials and Waste and Pollution Prevention. Alternative 2 would require procurement and disposal of hazardous materials such as oils, fuel, paints, and solvents. Some construction materials may contain hazardous materials although it is anticipated that the amount of these materials are minimal during construction and use is temporary.

AFRC as other FAFB tenants would be required to follow all FAFB and Air Force environment management policies governing the procurement, use, and disposal of hazardous materials. These policies are in place to safeguard the public, personnel, and the environment.

Asbestos Containing Materials (ACM) and Lead-Based Paint(LBP). Renovations and relocations would be conducted in buildings with known and unknown locations of ACM and LBP. Surveys and abatement would be required to control human exposure and reduce health risks.

Environmental Restoration Program. This alternative uses existing facilities where containment and mitigation has occurred. This alternative poses no significant hazard.

4.9.3 No-Action Alternative

It is anticipated that the volume of hazardous materials purchased and hazardous wastes generated would continue at current levels. Existing management procedures would continue to be followed.

4.10 Safety and Occupational Health

4.10.1 Alternative 1 - Preferred

There are no major safety and occupational health consequences related to the proposed action. Construction contractors are trained so that work would be performed in accordance with safety and occupational health standards, such as those required by the Occupational Safety and Health Act (OSHA). The contractor would be required to submit a site specific safety and health plan, as described in the Army Corps of Engineers Manual 385-1-1, *Safety and Health Requirements*.

Consolidation of functions between reserve units and operations in new, state-of-the-art facilities optimizes the opportunity to provide a safe working environment.

The AFRC compound is sited 400 feet away from the nearest source of potential jet blast. In addition, design of the new AFRC compound has been aligned to move administrative and training areas with the most concentrated use by personnel to the most northerly portion of the compound. Equipment storage, parking, and maintenance shops are located in the southern portion of the compound. This design reduces the potential safety hazard posed by jet blast. Unresolved is the worst case scenario of the potential 900 foot requirement of jet blast from larger aircraft. This scenario would be only in the event of emergency exercise. These scenarios nor the actual requirement is not known at the time of the writing of this EA. Suitable mitigation exists for this scenario and will be executed if found necessary as further information is available. This mitigation is to construct physical blast protection barriers between the “Christmas Tree” aircraft parking area and AFRC and to reconstruct the pavement of the aircraft parking area where necessary to increase resistance from impact of the blast and to reduce potential for flying debris. Another possible administrative mitigation is to designate a new Parking Space Six moving it inward to increase distance away from the AFRC. This mitigation is less desirable as it reduces operational flexibility. With these mitigations, potential hazard from jet blast is minimized to an acceptable level.

4.10.2 Alternative 2

Sharing and consolidation of resources within existing infrastructure presents unknown safety challenges. Operations would be conducted in older facilities with less opportunity to optimize efficiency and safety. Consolidation and relocation may require operations to be conducted in closer, smaller less efficient spaces which may increase worker stress and present more potential for unsafe situations.

4.10.3 No-Action Alternative

No change occurs in the existing work environment for either FAFB personnel or Armed Forces personnel.

4.11 Indirect and Cumulative Impacts

Cumulative impacts are the incremental effects of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Actions may be direct or indirect. The degree and kind of impact may be different depending on the length of time the impact occurs or the extent of area the impact is exhibited; in other words, time and space. Generally, assessing impacts to water resources require assessment of several geographic scales and often long spans of time. In contrast, impacts to infrastructure can be observed within a short time frame and over a smaller geographic area.

4.11.1 Alternative 1 - Preferred

Construction of the new AFRC facility would displace potential but unforeseen other land uses for the area. The FAFB General Plan was developed to minimize adverse impacts to future land use decisions. This proposed action is in compliance with the vision of the FAFB General Plan for the area.

Storm water management is a challenge in portions of FAFB and in the Airway Heights area, in general; particularly with increasing development. In Chapter 4, the direct effects of developing a thirty acres facility with increases in impervious surfaces were found to be not significant due to planned connections to the storm water conveyance and treatment system and from overland flow onto local geologic characteristics that dissipate runoff rapidly. The actual area of impervious surfaces constructed for the AFRC is about 6 acres. Currently there is over 100 acres of undeveloped, pervious surface in the general area which buffers the effects of the project. But further increases in impervious surfaces have the potential to cumulatively reduce the natural dissipation rate of storm water in the area and have a potential adverse impact. A potential addition to military housing is planned along FAFB's north boundary that if constructed, may increase impervious surfaces over an additional 20 acres. Soil and groundwater characteristics are similar to the AFRC location and it is expected to be designed with similar storm water management. No further development is planned for the area. This action should not significantly or cumulatively impact groundwater or storm water management in the future.

Open space would be reduced by thirty acres and with the planned additional housing, a total of 50 acres. This represents a reduction of 50% of the open space currently in the area. The area has been used for military exercises and is kept mowed to deter bird foraging that can present a safety hazard to aircraft. Currently the value of open space to wildlife is fair to poor. The greatest effect is the reduction of area for military exercises as existing quality of wildlife habitat is already reduced. Military exercises may be displaced to other locations containing higher valued wildlife habitat. This would represent an indirect effect if it were to occur. The degree of effect is unforeseeable at this time.

Increases in use of infrastructure, utilities, services, and other resources would be accommodated within the existing framework of policies and regulations and asset capacity without significant impact. FAFB General Plan (92ARW 2005) identifies capacity to expand and assimilate new operations.

4.11.2 Alternative 2

Indirect effects may occur with Alternative 2 resulting from relocation of existing operations in order to assimilate AFRC operations. These effects may result in reduced quality of work environment, require a higher degree of vigilance to reduce unsafe conditions and security risk, and reduced productivity. The degree of these effects is difficult to foresee and would be minimized as much as possible by coordination and planning efforts prior to the move.

No indirect effects or cumulative effects are anticipated with Alternative 2.

4.11.3 No Action Alternative

No change in the existing operations would result in status quo whereas no indirect or cumulative effects at FAFB would be realized. According to BRAC analysis, the savings from consolidation of AFRC and relocation to FAFB would not be realized. There would invariably be a cumulative economic effect for every year the BRAC plan was not realized.

Chapter 5: List of Preparers

Prepared by: Ms. Joni L. Sasich
92 CES/CEV
100 W. Ent Street, Suite 155
Fairchild AFB, WA 99011
(509) 247-8207

Chapter 6: Persons Consulted and/or Provided Copies

Maj William Belser	92 ADS/SGGB	Fairchild AFB WA
Mr. Todd Bennatt	92 CES/CEVR	Fairchild AFB WA
MSgt. George Cannata	92 AMXS/MXA	Fairchild AFB WA
Capt. Denis Casaubon	92 ARW/SEF	Fairchild AFB WA
Mr. Marc Connally	92 CES/CEVR	Fairchild AFB WA
Mr. Gerald Johnson	92 CES/CEV	Fairchild AFB WA
MSgt Wm. Kowalski	92 ARW/SEW	Fairchild AFB WA
Mr. David Luders	92 CES/CEOE	Fairchild AFB WA
Capt. Sarah Mountin	92 ARW/JA	Fairchild AFB WA
Ms. Andrea Naccarato	Army Reserve Office	College Park, GA
Ms. Kristin Nester	92 CES/CEVC	Fairchild AFB WA
Ms. Julie Osburn	92 CES/CEC	Fairchild AFB WA
TSgt. Joe Pierce	92 ARW/SEF	Fairchild AFB WA
Major Leslie Picht	92 ARW/SE	Fairchild AFB WA
Mr. Rick Rosa	92 CES/CEVC	Fairchild AFB WA
Mr. Mark Rupert	92 ARW/SEG	Fairchild AFB WA
Capt Jason Sander	92 MXG/QA	Fairchild AFB WA
Mr. Will Worrall	92 CES/CEVN	Fairchild AFB WA

City of Spokane – Planning Services Department

City Hall
808 W. Spokane Falls Blvd.
Spokane Washington 99201-3329

City of Airway Heights – Planning Division

P.O. Box 969
Airway Heights WA 99001

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Appendix A

Environmental Baseline Survey – July 4, 2006 updated October 10, 2006

Appendix B

- Armed Forces Reserve Center Proposed Site Layout
- DD Form 1391

Appendix C

Applicable laws, Regulations, Policies, and Planning Criteria

ENVIRONMENTAL BASELINE SURVEY

**ARMED FORCES RESERVE CENTER
FAIRCHILD AIR FORCE BASE, WASHINGTON**

JULY 4, 2006

ENVIRONMENTAL BASELINE SURVEY
ARMED FORCES RESERVE CENTER
FAIRCHILD AIR FORCE BASE, WASHINGTON

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LIST OF ATTACHMENTS

A MAPS and AERIAL PHOTOGRAPHS

- Vicinity Map of Fairchild AFB
- Location of Army Reserve Center on Fairchild AFB
- Land Uses at Fairchild AFB (Source: April 2006 EBS)
- Utility Locations of Subject Area
- Topographic Map
- Area Geology Map
- Soils Map (1950's Aerial)
- Contaminated Sites at Fairchild AFB (Source: April 2006 EBS)
- Recent Data Collection Summary Map for SS-39 Plume

B SUBJECT PROPERTY PHOTOGRAPHS

C ENVIRONMENTAL DATABASE RESULTS

D SITE RECONNAISSANCE SUMMARY

1.0 Purpose of the Environmental Baseline Survey

This Environmental Baseline Survey (EBS) has been prepared to assist environmental management staff by documenting any recognized environmental conditions, associated with current or past activities on the proposed location of the new Armed Forces Reserve Center (subject property), prior to entering into a tenant agreement with the Army Reserve and subsequent construction activities.

1.1 Site Location and Legal Description

Fairchild Air Force Base (FAFB) is located in east-central Washington, approximately 10 miles west of the City of Spokane and within five miles of Airway Heights in Spokane County. Interstate 90 is located approximately 3 miles south of Fairchild AFB and the main entrance to the base is accessed from State Highway 2.

The unincorporated areas surrounding FAFB consist of rural residential land uses and commercial/industrial facilities. The proposed Armed Services Reserve Center (subject property) is located in the east 1/2 of the southeast 1/4 of Section 28, Township 25 North, Range 41 East W.M. (adjacent to the northeast end of the active runway and south of the Skeet Range), with dimensions of 800 feet by 950 feet or 17.4 acres.

2.0 Survey Methodology

2.1 Approach and Rationale

Air Force Policy Directive 32-70, *Environmental Quality*, provides responsibilities and procedures for conducting an EBS, which is implemented through the Air Force Instruction (AFI) 32-7066, *Environmental Baseline Surveys* in Real Estate Transactions.

The primary focus of this EBS is to identify recognized environmental conditions, as defined by the American Society for Testing and Materials (ASTM) Standard D6008-96, *Standard Practice for Conducting Environmental Baseline Surveys*. ASTM defines a recognized environmental condition as “the presence or likely presence of any hazardous substances or petroleum products on the property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.” In addition, other environmental considerations, as defined by Department of Defense (DOD), were investigated to assess potential impacts on the value, reuse, or redevelopment of the subject property (ASTM 1996). ASTM Standard E1527-00, *Standard Practice for Environmental Site Assessments: Environmental Site Assessment Process*, also recommends the evaluation of any “business environmental risks” associated with the Site or the surrounding area. Examples of “business environmental risks” include asbestos-containing materials (ACM), radon gas, lead-based paint (LBP), lead in drinking water, wetlands, regulatory

compliance status, health and safety, ecological resources, endangered species, and indoor air quality (ASTM 2000).

This EBS was conducted in accordance with AFI 32-7066, *Environmental Baseline Surveys in Real Estate Transactions*, with additional guidance, as noted in AFI 32-7066, provided by the ASTM guidelines, *Standard Practice for Conducting Environmental Baseline Surveys* (D6008-96) and *Standard Practice for Environmental Site Assessments: Environmental Site Assessment Process* (E1527-00). The following components were included:

- Visual inspection, conducted May 31, 2006, to obtain a general characterization of the property.
- Observations of surrounding land use, to the extent possible; to identify neighboring activities that may or could have caused an impact on the environmental quality of the subject.
- Review of readily available historic aerial photographs and other historical records to determine to the extent possible, the history of the subject and surrounding area.
- Review of records and other relevant information made available by Fairchild AFB and the onsite facility manager regarding the subject.
- Records and literature survey of the environmental setting of the subject, including site geology, groundwater use and flow direction, proximity of surface water bodies, sensitive areas, and adjacent commercial and industrial uses.
- Review of readily available Federal and state regulatory records concerning the subject property and surrounding area.
- Review of relevant facility documents describing the environmental condition of the subject property.
- Interviews with the Environmental Restoration Program Manager and the Environmental Impact Analysis Program Manager.
- Because the subject is located within a federal facility, a chain-of-title search for the presence of environmental liens on the subject property was not conducted.

2.2 Statement of Limitations

The data presented and the opinions expressed in this EBS are qualified as follows:

- The data in this report were primarily derived from visual inspections, examination of records in the public domain, interviews with individuals with information about the subject property, and information provided by Fairchild AFB. Future manifestation of latent conditions, or occurrence of events, may require further exploration at the property; analysis of the data; and re-evaluation of the findings, observations, conclusions, and recommendations expressed in this report.
- Preparation of this report relied upon and presumed accuracy of certain information (or the absence thereof) about the subject and adjacent properties

provided by governmental agencies and FAFB. Except as otherwise stated in this report, the accuracy or completeness of such information had not been verified.

- No warranty or guarantee, whether expressed or implied, is made with respect to the data reported or findings, observations, and conclusions expressed in this report. Further, such data, findings, observations, and conclusions are based solely upon site conditions in existence at the time of investigation.
- This report was prepared on behalf of and for the exclusive use of Fairchild AFB.

3.0 Findings for Subject Property

In April 2006, an *Environmental Baseline Survey for the Privatization of Military Family Housing at Fairchild Air Force Base* was completed. As a component of the EBS, an extensive EDR database search was completed for the Fort Wright Village/Officer Capehart/Undeveloped Parcel, dated September 22, 2004 (Search Coordinates: Latitude: 47° 38' 19.0" and Longitude: 117° 38' 22.9"), which are located just northwest of the subject property. The EBS and database search were reviewed as a reference for the subject property and compared with more recent inquiries and subject property observations. Applicable information (and associated references) from the April 2006 EBS was also incorporated into the findings for this document.

3.1 Historic and Current Land Uses

In 1942, Fairchild AFB began its existence as the Spokane Army Air Depot, a repair facility for damaged aircraft returning from the Pacific Theater during WWII. After the war, in the summer of 1946, the Base was transferred to the Strategic Air Command and hosted the B-29 Superfortress Bomb Groups. In January 1948, after the Department of the Air Force was created, the Base received its second of three official names, Spokane Air Force Base. In November 1950, the Base took its current name in memory of Air Force Vice Chief of Staff, General Muir Fairchild, a native of Bellingham, Washington.

In October 1953, the Air Depot facility was deactivated, and by 1956 the Wing had begun a conversion that brought B-52 bombers and, later, KC-135 tankers to Fairchild AFB. In September 1991, under Air Force reorganization, the 92nd Bombardment Wing was redesignated the 92nd Wing, emphasizing dual bombing and refueling roles. In June 1992, the 92nd Wing became part of the newly formed Air Combat Command (ACC) and was redesignated the 92nd Bomb Wing. December 1993 marked the beginning of perhaps the largest change and transition in the history of the Base as the B-52 aircraft began transferring to another unit. The KC-135 aircraft remained at Fairchild AFB and were assigned to AMC. On July 1, 1994, the 92nd Bomb Wing was re-designated the 92nd Air Refueling Wing (92 ARW 2004), and Fairchild AFB was transferred from ACC to AMC, thereby creating the largest air refueling wing in the USAF. The Base has supported operations throughout the world, including Operations RESTORE HOPE, DESERT

SHIELD, DESERT STORM, ALLIED FORCE, NORTHERN WATCH, SOUTHERN WATCH, and, most recently, IRAQI FREEDOM.

The activities and operations at FAFB are grouped by functional areas and land use categories including airfield/airfield pavements, aircraft operations and maintenance, industrial (including training), administrative, community (commercial), community (service), medical, housing (accompanied), housing (unaccompanied), open space, outdoor recreation, and water. Airfield/airfield pavements and open space account for more than 50 percent of FAFB's acreage, and most facilities are located within the aircraft operations and maintenance, industrial, and housing land uses.

Portions of the currently undeveloped subject property are designated as Open Space and Outdoor Recreation (associated with the Skeet Range). An extension of Eaker Avenue from Fort Wright Village to the subject property is also proposed. Because the subject property is removed from the mission-specific functional areas, it appears to have always been undeveloped land, although physically altered from native conditions by grading, excavation, and filling. This is supported by review of historic aerial photographs (1942 and 1950), which show various activities in the area associated with runway alignment and construction (grading and staging areas). Although no buildings or other structures are observed, the FAFB utility map shows storm water and sewer lines crossing the subject property.

Predominant land uses within the unincorporated areas surrounding FAFB are agricultural and open rangeland, with some low-density rural residential development to the north, south, and west. An expanding gravel pit operation is located to the east of the subject property, and a WalMart distribution center is reportedly planned for a site just east of the FAFB boundary. These are all indicative of mounting development pressure in the area as part of an overall increase in small industrial development surrounding Airway Heights.

3.2 Environmental Setting

Topography. The general topography of Fairchild AFB and the surrounding area is flat, with an average elevation of 2,430 feet above mean sea level. Located within an area called the "channeled scablands", described as massive depositional and scour features resulting from catastrophic flooding during the Pleistocene, basalt columns (created by cooling joints) and floodwater depositional and erosional artifacts (mounds, channels, and giant ripple marks) are the predominant features. Undisturbed topographic slope in the vicinity of the subject property is to the northeast at less than 1%.

Geology. The Columbia Plateau was formed by Miocene age flood basalt flows and sculpted by subsequent glacial floodwaters (Pleistocene) from Lake Missoula that widened the Spokane River Valley, deposited a thick layer of gravel (reportedly up to 500 feet in some areas), and formed the channeled scabland topography observed in the area. Mapped basalt units in the area are Wanapum and Grande Ronde, with overlying

Quaternary age unconsolidated gravel deposits (outburst-flood) and loess. An area of dune sand is also identified immediately northwest of Fairchild.

Natural Hazards. The State of Washington has an average of 1,000 earthquakes per year and is characterized by a moderate to high level of seismic activity, while Spokane has a moderate level of seismic activity. For the subject property, liquefaction susceptibility is very low and the Site Class designation is C (corresponding to an average shear wave velocity in the upper 100 feet of 1,200 to 2,500 ft/sec), based upon Spokane County mapping (Washington State DNR, DGER, September 2004).

Soils. Soils in the area are generally shallow overlying basalt bedrock, and the Spokane County Soil Survey identifies Cheney and Uhlig associated silt loams, 0 to 8 percent slopes (**Cnb**) in the area of the subject property. The Cheney silt loam surface soils grade to very gravelly sandy loam and gravel/cobbles at depth, with increasing permeability. The Uhlig silt loam to very fine sandy loam is typically deeper, medium-textured, and well-drained (formed from glacial till mixed with loess and volcanic ash in the upper parts. Reported depth to bedrock (based upon soil boring data west of the subject) is less than 20 feet and increases westerly.

Groundwater. Fairchild AFB is underlain by alluvial sediments and two layers of basalt associated with the regional Columbia River Basalt Group. The uppermost basalt is referred to as Basalt A, and the deeper basalt sequence is referred to as Basalt B. The top of Basalt A is fractured and highly weathered in places, while the center is more massive and fine grained with infrequent fractures and low permeability. Basalt B is porous and vesicular at the top and becomes progressively denser with depth (AFCEE/ERD 2000).

The uppermost groundwater at Fairchild AFB is typically encountered from 3 to 12 feet below ground surface in alluvium and/or fractured and weathered uppermost portion of Basalt A. Groundwater flows generally from west to east across the Base. In some locations, a high degree of hydraulic conductivity exists between the alluvium and shallow basalt water-bearing zones. In other areas, a low permeability clay layer separates the shallow alluvium and basalt bedrock water-bearing zones. Groundwater flow within Basalt A occurs predominantly where the number of interconnected fractures is highest in the upper and lower portions of the formation. Vertical groundwater movement through Basalt A is typically slow because of the tightness of fractures within the center of the basalt formation (AFCEE/ERD 2000).

Fairchild AFB receives almost all of its water from wells at the Fort George Wright Annex. However, a seasonal well located at the extreme southeast corner of the Base pumps water to the water distribution grid. This well is used only when water demands cannot be met from the Fort George Wright Annex wells (92 ARW 2004). All wells are monitored closely at Fairchild AFB for possible contamination.

Surface Water. Fairchild AFB and the surrounding area are located in the Lower Spokane Watershed, which flows into Lake Roosevelt. No surface water features are located on or near the subject property that are contributory to the watershed drainage.

As a result of the relatively flat topography, storm water runoff tends to disperse and infiltrate in unpaved areas or is concentrated and directed to the storm water management system, which consists of collection/conveyance piping, catch basins, detention/infiltration ponds, swales, and ditches.

Persistent flooding of farm fields southeast of Fairchild AFB in the past resulted in a policy of no net increase in storm water flows sent off Base (92 ARW 2004). Although Fairchild AFB does not have or require specific watershed protection, storm and wastewater management are addressed in great detail in the **Storm Water Pollution Prevention Plan (SWPPP)**. FAFB also limits non-point discharges of storm water through the use of best management practices (e.g., open ponds; vegetated drainage ponds; grass-lined ditches; and infiltration systems); and the Base samples and tests storm water, as required by NPDES permit, south of the closed landfill.

Floodplains. There are no 100- or 500-year floodplains within or adjacent to the subject property. (92 CES/CEV 2000).

Wetlands. The main Base includes approximately 213 acres of wetlands of various levels of quality. According to the **Wetland Management Plan**, there are 11 designated conservancy wetlands. The conservancy wetlands on Fairchild AFB are those that should be considered for preservation (92 ARW 2004). Conservancy wetlands consist of a total of 118 acres and provide the greatest functions and values of the wetlands on Base, in terms of the following: size (greater than or equal to 2 acres); surface water connections to offsite water sources; species diversity of significant native plants; or wildlife habitat (92 ARW 2004). There are no wetlands located on the subject property.

3.3 Regulatory Records Review

For subject property environmental data review, the following standard environmental recorded sources are checked at the minimum distances, as listed:

Environmental Data Record Sources <i>Reference:</i> <i>ASTM designation E1527 – 00 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process</i>	Minimum Search Distances
Federal NPL (<i>National Priority List</i>) - Superfund Sites	1.0-mile radius
Federal CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System)	0.5-mile radius
Federal CERCLIS NFRAP (No Further Response Action Planned)	Subject and adjoining properties
Federal RCRA (<i>Resource Conservation and Recovery Act</i>) CORRACTS (<i>Corrective Action Record</i>) facility list	1.0-mile radius
Federal RCRA non-CORRACTS TSD (Treatment, Storage and/or Disposal) facilities list	0.5-mile radius
Federal RCRA generators list	Subject and adjoining properties
Federal ERNS (<i>Emergency Response Notification List</i>) spill notification list	Subject property only

Federal RCRA (<i>Resource Conservation and Recovery Act</i>) CORRACTS (<i>Corrective Action Record</i>) facility list	1.0-mile radius
State- equivalent NPL	1.0-mile radius
State- equivalent CERCLIS	0.5-mile radius
State landfill and solid waste disposal site lists	0.5-mile radius
State leaking UST (Underground Storage Tank) lists	0.5-mile radius
State registered UST (Underground Storage Tank) lists	Subject and adjoining properties

Local Records and Sources (Discretionary and Supplemental to Federal and State Sources)
List of Landfill/Solid Waste Disposal Sites
List of Hazardous Waste/Contaminated Sites
List of Registered Underground Storage Sites
Local Land Records (for activity and use limitations)
Records of Emergency Release Reports (SARA & 304)
Records of Contaminated Public Wells
Department of Health/Environmental Division
Fire Department
Planning Department
Building Permit/Inspection Department
Local/Regional Pollution Control Agency
Local/Regional Water Quality Agency
Local Electric Utility Companies (for records relating to PCBs)

3.3.1 Federal Databases

Federal Databases: CERCLIS (which includes NPL sites), RCRIS, and ERNS (National Response Center) databases were reviewed for Fairchild AFB (zip code 99011), Airway Heights (zip code 99001), and Spokane County. The following are sites identified through the database queries. No sites were identified on the subject property:

<p>CERCLIS: http://www.epa.gov/superfund/sites/cursites/ Fairchild Air Force Base - 4 Waste Areas (Operable Units) – listed on the NPL with final NPL status</p>
<p>RCRIS: http://www.epa.gov/enviro/html/rcris/rcris_query_java.html Fairchild: USAF Fairchild AFB, ID: WA9571924647 USWCOM Spokane Chestnut Co., ID: WAT540010741 Airway Heights: Airway Heights Correction, ID: WAR000000323 Blue Crick Svc, ID: WAD988516555 Garco Building Systems, ID: WAD988480604 Lee Northwest Publishing, ID: WAH000013490 Spokane Galvanizing, ID: WAD980986780 Square O Company, ID: WAD099039281 Stericycle of Washington, Inc., ID: WAH000012245 Transformer Technologies, ID: WAD988471181 USAF Craig Road Landfill, ID: WAR000000992</p>
<p>NRC (National Response Center): http://www.nrc.uscg.mil/nrchp.html One report filed with the NRC for Fairchild AFB: 1,800 gallons propylene glycol – parking lot near tarmac Flow to storm drain and unnamed ditch (2003).</p>

3.3.2 Washington State Databases

The federal database search results were also compared (for completeness) with the Washington State Department of Ecology's Facility/Site Identification System database (<http://www.ecy.wa.gov/services/as/iss/fsweb/fshome.html>), which provides better radius searches and results closer to the subject). These were queried using latitude **N 47.6386** and longitude **W 117.6397** (degree decimal equivalent) coordinates and 0.25-mile to 5-mile radius searches. This state database includes federal environmental site data and state listed contaminated sites, hazardous waste generators, fuel underground storage tanks (UST) and leaking underground storage tanks (LUST), landfills, water quality permits, and dams. A summary of the environmental database search is located in **Table 1** and **Figure 1**. (**Note:** It is common for the actual facility/site locations to differ from reported locations due to reading, datum, and unit errors—for example coordinates for Sites 11 and 21 are reported as being located on FAFB and are actually on McFarlane Road). Sites listed are both active and inactive, and the closest reported sites are within 2 miles of the subject (no sites were reported as located on the subject property).

3.4 Site Reconnaissance

The subject property was inspected, on May 31, 2006, by walking the boundaries and noting observations (summarized in a checklist provided as an appendix to this document) and taking photographs. The subject was observed to be relatively flat undeveloped ground, with areas of slight mounding and/or small soil stockpiles (from grading), and vegetated with grasses and forbs (with no significant areas of noxious weeds). A groundwater monitoring well (MW-221) is located near the center of the subject. No structures, above ground tanks, or electrical service were observed on the property. A utility manhole was observed on the western section of the subject and small areas of bare ground were observed (with no evidence of spills or stressed vegetation on the edges). The property was free of litter and debris with no evidence of fugitive disposal.

Observation of adjacent properties:

- North: Open space with soil stockpile and Skeet Range in distance
- East: Unimproved gravel road along FAFB fenced boundary. Gravel pit operation on other side of Rambo Road to the northeast. Stockpiled concrete and equipment staging area.
- South: Runway extension
- West: Old runway alignment remnants and area used for staging construction materials, concrete pipe and structures, and soil.

3.5 Hazardous Substances

There is no documented use of the subject property for storage of hazardous substances, and no evidence of hazardous substance use or spills were observed on the property during the site reconnaissance.

Table 1
Summary of Environmental Database Search Results
Washington State Department of Ecology

Site	Name	Distance	Type	Status	Location
1	AAFES Station Bldg. 2386 ID 76177555	2 miles	UST	Inactive	Lat: 47.6361 Long: 117.6529
2	Airway Heights SpeediShoppe ID 88322443	5 miles	UST	Active	Lat: 47.6427 Long: 117.5955
3	Blue Crick Svc ID 25857396	5 miles	Haz. Waste Generator	Inactive	Lat: 47.6437 Long: 117.6022
4	Clear Lake Rec. Area ID 38858125	5 miles	UST	Active	Lat: 47.6182 Long: 117.6617
5	Contech Const Spokane Culvert ID 3678219	5 miles	General Permit Storm Water Ind.	Active	Lat: 47.6292 Long: 117.6125
6	DET 1 6 SOPS ID 11948259	5 miles	UST	Active	Lat: 47.6500 Long: 117.5915
7	Elizabeth Johnson ID 518392	5 miles	Non Enforce. Final Water Resources	Active	Lat: 47.6718 Long: 117.6092
8	Fairchild Shoppette ID 79762467	2 miles	UST	Active	Lat: 47.6361 Long: 117.6511
9	Flying J Inc. ID 95187258	5 miles	Emerg/Haz Chem Rpt TIER 2	Inactive	Lat: 47.6497 Long: 117.5900
10	Graham Road Recycling ID 46767518	5 miles	Emerg/Haz Chem Rpt TIER 2 Landfill	Active Active	Lat: 47.6368 Long: 117.6699
11	Lee Northwest Publishing ID 2251157	2 miles	Haz. Waste Generator Haz. Waste Planner	Active Inactive	Lat: 47.6285 Long: 117.6254
12	Maak Tire Recycling ID 76232867	5 miles	Landfill	Active	Lat: 47.6500 Long: 117.5900
13	Midco Mfg Inc dba Carco ID 35571715	5 miles	Toxics Release Inv. Emerg/Haz Chem Rpt TIER2 UST	Inactive Active Inactive	Lat: 47.6500 Long: 117.5915
14	NW Pipeline ID 36635115	5 miles	Haz Waste Generator	Inactive	Lat: 47.6358 Long: 117.6794
15	NW Pipeline Airway Hts ID 678	5 miles	Independent Cleanup	Inactive	Lat: 47.6366 Long: 117.6702
16	Pakco Mini Mart ID 55891327	5 miles	UST	Active	Lat: 47.6432 Long: 117.6016
17	Qwest Communications ID 33648756	5 miles	UST	Inactive	Lat: 47.6578 Long: 117.6049
18	Qwik Stop Div Gull ID 94697987	5 miles	Haz Waste Generator	Inactive	Lat: 47.6427 Long: 117.6055
19	Spokane Culvert Co. ID 38345762	5 miles	UST	Inactive	Lat: 47.6282 Long: 117.6053
20	Spokane Rock Products ID 1739559	5 miles	General Permit Ind Water Quality	Active	Lat: 47.6388 Long: 117.6072
21	Sun Runner Marine ID 66594751	5 miles	Haz Waste Generator	Inactive	Lat: 47.6267 Long: 117.6108
22	Telephone Util. Of Wash. ID 29546393	5 miles	UST	Inactive	Lat: 47.60942 Long: 117.6732

UST = Underground Storage Tank, LUST = Leaking Underground Storage Tank

Table 1 (cont'd)
Summary of Environmental Database Search Results
Washington State Department of Ecology

Site	Name	Distance	Type	Status	Location
23	Tesoro 2Go 62131 ID 49457134	5 miles	Emer/Haz Chem TIER2 LUST UST LUST Voluntary Cleanup	Inactive Inactive Active Active Active	Lat: 47.6433 Long: 117.6010
24	USAF Craig Road Landfill ID 84745534	5 miles	Haz. Waste Generator Haz. Waste Mgt. Act.	Inactive Active	Lat: 47.6465 Long: 117.6050
25	USAF Fairchild AFB S155 ID 54359899	2 miles	Air Qual. Permit Source	Active	Lat: 47.6303 Long: 117.6508
26	USAF FAFB PR2 LTM ID 72389311	5 miles	Federal Superfund Cleanup Site	Active	Lat: 47.6193 Long: 117.6513
27	USAF FAFB PR2 PS1 ID 58757186	5 miles	Federal Superfund Cleanup Site	Active	Lat: 47.6345 Long: 117.6599
28	USWCOM Spokane Chestnut ID 39154694	2 miles	Haz. Waste Generator	Inactive	Lat: 47.6272 Long: 117.6487
29	Vietzke Excavating Co. ID 91292831	5 miles	UST	Inactive	Lat: 47.6500 Long: 117.5915
30	WA Air Nat. Guard 141 CES ID 8148564	5 miles	UST	Inactive	Lat: 47.6182 Long: 117.6617
31	West Plains Groundwater Contamination Area ID 89233269	5 miles	Independent Cleanup	Active	Lat: 47.6426 Long: 117.6687
32	Yellowstone Pipeline Co. Fairchild Del Facility	5 miles	Voluntary Cleanup Site	Active	Lat: 47.6344 Long: 117.6692

UST = Underground Storage Tank, LUST = Leaking Underground Storage Tank

3.6 Environmental Restoration Program (ERP) Contamination

The ERP requires each DOD installation to identify, investigate, and clean up hazardous waste disposal or release sites. The ERP at Fairchild AFB began in 1984 with a base-wide Preliminary Assessment/Records Search that identified 15 ERP sites for further investigation. In 1989, Fairchild AFB was placed on the USEPA's NPL, a list of sites that are considered to be of special interest and require immediate attention (NPL 2004). Supplemental site assessments and investigations in the later 1980s and 1990s brought the total to 37 sites that are being investigated and cleaned up under the ERP. Currently, 21 sites are closed under No Further Action (NFA) or No Further Remedial Action Planned (NFRAP), seven are expected to be No Further Action, nine are under remediation, and two are under investigation. The sites include spill areas, drainage areas, landfills, storage tanks, fire training areas, and radioactive waste sites. Primary contaminants in soil and water include waste solvents, fuels, dissolved phase fuels and solvents, and low-level radiation waste. Seventeen ERP sites have associated institutional or land use controls.

ERP site SS-39 (Base wide TCE plume) is located west of the subject property; and the most recent data collection efforts indicate the plume configuration is structurally controlled by a basalt bedrock high, which directs the plume towards the north-northwest. Groundwater monitoring data for MW-221, which is located on the subject property, exhibited non-detect concentrations in 2004 (the last time the well was sampled) and depth to water of approximately 10 feet below ground surface. The well is not abandoned and is currently not included in the SS-39 monitoring program.

3.7 Storage Tanks: Aboveground, Day Tanks, and Underground

There is no documented use of aboveground, day tanks, and/or underground storage tanks on the subject property; and no tanks were observed on the property during the site reconnaissance.

3.8 Oil/Water Separators

Most of the oil/water separators are located in shops along the flight line. Although a storm water conveyance line is documented on the subject property and manholes were observed during the site reconnaissance, there are no oil/water separators within the subject property boundaries.

3.9 Pesticides/Herbicides

No restricted use pesticides/herbicides are currently being used on the Base, and Fairchild has developed and implemented an *Integrated Pest Management Plan* that describes the proper management of noxious weeds and details the types of herbicides, biological controls, and other management practices to be used in the control of noxious weeds.

Pesticide and herbicide applications currently being implemented on a contractual basis, so there is also no pesticide/herbicide storage on the Base.

3.10 Medical or Biohazardous Waste

The medical complex is located off Graham Road on the west side of the Base, and there is no documented evidence of medical facilities or biomedical waste accumulation points located on the subject or adjacent properties.

3.11 Ordnance

Explosive Safety Clear Zones are not located near the subject, and no ordnance storage areas are located on the subject. Because the Skeet Range is located adjacent to the subject property (to the north), there is a potential for lead shot being present on the subject, although not observed during the site reconnaissance.

3.12 Radioactive Wastes

Based on available information, there is no indication that radiological substances are present on the subject property.

3.13 Solid Waste

FAFB operates a solid waste and recycling program, with a full-service recycling center, accepting a wide variety of materials including household hazardous waste. No litter, debris, or evidence of fugitive disposal was observed on the subject.

3.14 Groundwater and Drinking Water

Fairchild AFB receives water from three wells at the Fort George Wright Annex. These wells feed the Geiger Reservoir near the Spokane International Airport. Water is then piped to ground storage tanks on Base. If water demand is not met, a seasonal well located at the extreme southeast corner of the base pumps water to the water distribution grid. The Bioenvironmental Engineering Flight (92 Aerospace Medicine Squadron) monitors drinking water quality weekly at various points throughout the installation, ensuring it meets required Federal and state health standards. There are groundwater concerns associated with the ERP site SS-39, TCE orphan plume. However, the Base drinking water wells have not been impacted (92 ARW 2004).

3.15 Wastewater Treatment, Collection and Discharge

There is no documented evidence of any wastewater treatment, collection, and/or discharge facilities located on the subject property and none were observed during the site reconnaissance, with the exception of manholes associated with storm water and sewer conveyance and collection systems.

3.16 Releases to Air

Fairchild AFB has had a Title V Air Operating Permit to operate as a major source for criteria pollutant emissions since December 2001. The Base is in the process of obtaining synthetic minor source status for nitrogen dioxide and natural minor status for all other criteria pollutants. This action recognizes that the Base is actually creating less pollution and will be subject to less regulatory supervision (92 ARW 2004). No operating units or fugitive emissions are documented or observed on the subject property.

3.17 Discharges to Water

The FAFB storm water management system is operated under a NPDES Storm Water Multisector General Permit (No. WAR05A025) and has a required Storm Water Pollution Prevention Plan (SWPPP). The Base implements best management procedures to limit contaminants in storm water runoff, and periodic samples are collected to verify compliance with NPDES permit conditions (92 ARW 2004). There are no permit conditions associated with the subject property.

3.18 Asbestos

There is no documentation of structures on the subject property, and no disposal of asbestos materials was observed on the subject during the site reconnaissance.

3.19 Polychlorinated Biphenyls (PCBs)

There are no transformers located on the subject property.

3.20 Radon

Fairchild AFB and Spokane County are in Federal USEPA Radon Zone 1, or the highest priority zone. (average indoor level > 4 pCi/L). No structures are located on the subject property, but future construction should include an appropriate level of mitigation for radon.

3.21 Lead

No structures are located on the subject property and there is no documentation that any permanent structures have ever been located on the property (always undeveloped open space). However, lead shot from use of the adjacent Skeet Range may be encountered in subject soils.

4.0 Findings for Adjacent Properties

Adjacent properties to the subject include the following:

- North-northwest: Skeet Range and proposed Eaker Avenue Extension along north boundary of the subject.
- South-southeast: Runway Area
- West: Open Space and construction materials storage
- East: Gravel pit operation, materials storage (concrete debris), and equipment staging area east of Rambo Road (2010 S. Fairview Heights Road). There is also a reported proposal for a new commercial development (WalMart) to the east.

Although FAFB encompasses several remediation sites in the area, none of the adjacent properties exhibit any evidence of past or potential environmental impacts on the subject property due to releases of hazardous substances or petroleum products, with the possible exceptions of lead shot from the Skeet Range being encountered in the subject soils and fuel spills from the gravel pit operations adversely impacting groundwater on the subject, if not managed properly.

5.0 Conclusions

- Historical evidence and operational records indicate the subject property has always been undeveloped (free of permanent structures), although the subject has been graded and excavated for utilities.
- There is no evidence of recognized environmental conditions (RECs) on the subject property, although the history of the area suggests the potential for encountering contaminated soils from surface activities and/or from migration of contaminated groundwater.
- A TCE-contaminated groundwater plume is documented to the west of the subject and several soil and groundwater remediation projects are ongoing throughout the Base. A groundwater monitoring well located on the subject (MW-221) was last sampled in 2004, with concentrations below method detection limits, and has not been abandoned.
- Other potential impacts to the subject from adjacent properties include lead shot in the soils from the Skeet Range area to the north and operational spills from the gravel pit area impacting groundwater (if not managed properly).
- The area qualifies as a Category I- No storage, release or disposal has occurred. Property where no hazardous substances or petroleum products or their derivatives were stored, released into the environment or structures, or disposed on the subject property and where no migration from adjacent areas has occurred.

6.0 Recommendations

- Although there is no documented evidence of recognized environmental conditions on the subject property, it is recommended that future development of the property consider land use restrictions and institutional controls employed in nearby ERP sites in the planning process. It is also recommended that building plans include radon mitigation measures and a contingency plan for managing contaminated soil and/or groundwater, if encountered during construction.
- Prior to decommissioning groundwater monitoring well MW-221 (in accordance with WAC 173-160 requirements), it is recommended that the well be sampled to verify groundwater quality.

7.0 Certifications

Certification of the Environmental Baseline Survey

This Environmental Baseline Survey (EBS) of the proposed site for the Armed Forces Reserve Center was prepared on behalf of the United States Air Force. The EBS included review of all appropriate records made available, and conducted a visual site inspection of the subject property. The information contained within the survey report is based on records made available and, to the best of the preparer's knowledge, is correct and current as of June 2006.

Prepared by: /s/ Sheila Pachernegg, P.E.
Sheila Pachernegg, P.E.

Date: 7/4/2006

Cascadia Technical Services, PLLC
P. O. Box 128
Spokane, WA 99210

Certified by: _____

Date: _____

JONI L. SASICH, CPSS
EIAP/Natural/Cultural Resource Program Manager
Fairchild AFB 92 CES/CEVN

Approved by: _____

Date: _____

RONALD R. DANIELS
EPC Executive Secretary

8.0 References

- April 2006 EBS *Environmental Baseline Survey for the Privatization of Military Family Housing at Fairchild Air Force Base, Washington.* April 2006
- EDR 2004a Environmental Data Resources, Inc. (EDR)-Radius Map, with GeoCheck® Report. *Fort Wright Village/Officer Capehart/Undeveloped Parcel, WA.* Inquiry No.: 0961547.1s. April 16, 2003.
- 92 ARW 2004 92nd Air Refueling Wing (ARW). 2004. General Plan for Fairchild Air Force Base (AFB), Washington. 100% Submittal. May 2004
- 92 CES/CEV 2000 92nd CES/CEV. 2000. Integrated Natural Resources Management Plan. Fairchild Air Force Base, Washington.
- AFCEE/ERD 2000 Air Force Center for Environmental Excellence (AFCEE) Environmental Restoration Division (ERD). 2000. Five-Year Review Report Fairchild Air Force Base. AFCEE/ERD Brooks Air Force Base, Texas. November 2000.
- WA DGER 2004 Washington State Department of Natural Resources (DNR), Division of Geology and Earth Resources. 2004.
- United States Department of Agriculture (USDA). 1968. Soil Survey. Spokane County Washington. March 1968.
- Geologic Map of Washington – Northeast Quadrant*, Washington State Department of Natural Resources (DNR) Division of Geology and Earth Resources, 1991

Site Reconnaissance Summary

REFERENCE: <i>ASTM designation E1527 – 00 Standard Practice for Environmental Site Assessments</i> <i>Section 8.0 Site Reconnaissance</i>
Inspector: Sheila Pachernegg
Date: Wednesday, May 31, 2006 Time: 0900 - 1000 Weather: breezy, sunny, approx. 50° F.
Current Use of Property: Undeveloped open space. Bunch grasses, meadow grass vegetation, some noxious weeds. MW-221 tag 7/93, (WP: 47° 37'.937', 117°37.651', elev. 2,259 ft.)
Past Use of Property: Undeveloped open space.
Current Use of Adjoining Property North-northwest: Skeet Range South-southeast: Runway – airfield extension and unimproved gravel road West: Materials storage area on old concrete (topsoil, concrete, etc.) East: Open space – Boundary road – Rambo Road – open space and gravel pit on east side of Rambo Road
Past Use of Adjoining Property: North-northwest: Skeet Range and open space South-southeast: Runway – different alignments West: Runway alignment East: Open space
Geologic, Hydrogeologic, Hydrologic, Topographic Conditions: Flat to slightly mounded. Evidence of grading, less than 5 ft. of elevation change across subject. Slight scarred area near north boundary. No surface water, wetlands, boggy areas
General Descriptions of Structures: No structures
Roads: Boundary – unimproved gravel.
Potable Water Supply: None observed. Monitoring well MW-221 on subject.
Sewage Disposal System: None observed. Manhole observed (WP: N47°37.967', W117°37.763').
Hazardous Substances and Petroleum Products in Use: None observed.
Storage Tanks: None observed.
Odors: None observed.
Pools of Liquids: None observed.

Drums: None observed.
Hazardous Substance and Petroleum Products Containers: None observed.
Unidentified Substance Containers: None observed.
PCBs: No transformers observed on subject.
Heating and Cooling: No structures – NA
Stains and Corrosion: None observed.
Drains and Sumps: Manhole observed. – possible stormwater.
Pits, Ponds, Lagoons: None observed.
Stained Soils or Pavements: None observed.
Stressed Vegetation: A couple of open patches observed.
Solid Waste: No litter, debris, or evidence of fugitive disposal observed.
Waste Water: Manhole observed – possible stormwater.
Wells: MW-221 on site.
Septic Systems: No structures. None observed.

1. COMPONENT AR	FY 2007 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 05 DEC 2005 03 JUN 2005
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3. INSTALLATION AND LOCATION Fairchild AFB AFRC (BRAC) Washington	4. PROJECT TITLE Armed Forces Reserve Center
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5. PROGRAM ELEMENT 0532292A	6. CATEGORY CODE 171 41	7. PROJECT NUMBER 64594	8. PROJECT COST (\$000) 31,000
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9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY				23,049
Army Forces Reserve Center	SF	110,009	130.65	(14,373)
Vehicle Maintenance Shop	SF	35,647	136.23	(4,856)
Organizational Unit Storage	SF	9,556	59.50	(569)
Storage Shed, Covered	SF	87,763	25.65	(2,251)
Organizational Parking	LS	--	--	(355)
Total from Continuation page(s)				(645)
SUPPORTING FACILITIES				4,148
Electric Service	LS	--	--	(565)
Water, Sewer, Gas	LS	--	--	(753)
Paving, Walks, Curbs And Gutters	LS	--	--	(212)
Storm Drainage	LS	--	--	(188)
Site Imp(2,256) Demo()	LS	--	--	(2,256)
Information Systems	LS	--	--	(132)
Antiterrorism Measures	LS	--	--	(42)
ESTIMATED CONTRACT COST				27,197
CONTINGENCY PERCENT (5.00%)				1,360
SUBTOTAL				28,557
SUPERVISION, INSPECTION & OVERHEAD (5.70%)				1,628
DESIGN/BUILD - DESIGN COST (4.0000%)				1,142
CATEGORY E EQUIPMENT				0
TOTAL REQUEST				31,327
TOTAL REQUEST (ROUNDED)				31,000
INSTALLED EQT-OTHER APPROPRIATIONS				(158)

10. Description of Proposed Construction USA-0207. Construct an Armed Forces Reserve Center (AFRC). Primary facilities will include a Multi-use Classroom, Area Maintenance Support Activity (AMSA), Organizational Maintenance Shop (OMS), unheated vehicle storage shed, and unit storage building. Buildings will be of permanent construction with HVAC systems, plumbing, mechanical systems, security systems, and electrical systems. Supporting facilities include land clearing, paving, fencing, general site improvements, and extension of utilities to serve project. Accessibility for the disabled will be provided. Force protection (physical security) measures will be incorporated into design including maximum standoff distance from roads, parking areas, and vehicle unloading areas. Berms, heavy landscaping, and bollards will be used to prevent access when standoff distances cannot be maintained. Air Conditioning (Estimated 324 Tons).
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Appendix C

Applicable Laws, Regulations, Policies, and Planning Criteria

When considering the affected environment, the various physical, biological, economic, and social environmental factors must be considered. In addition to the National Environmental Policy Act (NEPA), there are other environmental laws and Executive Orders (EOs) to be considered when preparing environmental analyses. These laws are summarized below.

Noise

The Air Installation Compatible Use Zone (AICUZ) Program, (Air Force Instruction [AFI] 32-7063), provides guidance to air installations and local communities in planning land uses compatible with airfield operations. The AICUZ program describes existing aircraft noise and flight safety zones on and near U.S. Air Force (USAF) installations.

Land Use

Land use planning in the USAF is guided by *Land Use Planning Bulletin, Base Comprehensive Planning* (HQ USAF/LEEVS, August 1, 1986). This document provides for the use of 12 basic land use types found on an Air Force installation. In addition, land use guidelines established by the U.S. Department of Housing and Urban Development (HUD) and based on findings of the Federal Interagency Committee on Noise (FICON) are used to recommend acceptable levels of noise exposure for land use.

Air Quality

The Clean Air Act (CAA) of 1970, and Amendments of 1977 and 1990 recognize that increases in air pollution result in danger to public health and welfare. To protect and enhance the quality of the Nation's air resources, the CAA authorizes the U.S. Environmental Protection Agency (USEPA) to set six National Ambient Air Quality Standards (NAAQS) which regulate carbon monoxide, lead, nitrogen dioxide, ozone, sulfur dioxide, and particulate matter pollution emissions. The CAA seeks to reduce or eliminate the creation of pollutants at their source, and designates this responsibility to state and local governments. States are directed to utilize financial and technical assistance as well as leadership from the Federal government to develop implementation plans to achieve NAAQS. Geographic areas are officially designated by USEPA as being in attainment or nonattainment to pollutants in relation to their compliance with NAAQS. Geographic regions established for air quality planning purposes are designated as Air Quality Control Regions (AQCRs). Pollutant concentration levels are measured at designated monitoring stations within the AQCR. An area with insufficient monitoring data is designated as unclassifiable. Section 309 of the CAA authorizes USEPA to review and comment on impact statements prepared by other agencies.

An agency should consider what effect an action could have on NAAQS due to short-term increases in air pollution during construction as well as long-term increases resulting from changes in traffic patterns. For actions in attainment areas, a Federal agency may also be subject to USEPA's Prevention of Significant Deterioration (PSD) regulations. These regulations apply to new major stationary sources and modifications to such sources. Although few agency facilities will actually emit pollutants, increases in pollution can result from a change in traffic patterns or volume. Section 118 of the CAA waives Federal immunity from complying with the CAA and states all Federal agencies will comply with all Federal- and state-approved requirements.

Safety

AFI 91-202, *USAF Mishap Prevention Program*, implements Air Force Policy Directive (AFPD) 91-2, *Safety Programs*. It establishes mishap prevention program requirements (including the Bird/Wildlife Aircraft Strike Hazard [BASH] Program), assigns responsibilities for program elements, and contains program management information. This instruction applies to all USAF personnel.

AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program*, implements AFPD 91-3, *Occupational Safety and Health*, by outlining the AFOSH Program. The purpose of the AFOSH Program is to minimize loss of USAF resources and to protect USAF personnel from occupational deaths, injuries, or illnesses by managing risks. In conjunction with the USAF Mishap Prevention Program, these standards ensure all USAF workplaces meet Federal safety and health requirements. This instruction applies to all USAF activities.

Water Resources

The Clean Water Act (CWA) of 1977 is an amendment to the Federal Water Pollution Control Act of 1972, is administered by USEPA, and sets the basic structure for regulating discharges of pollutants into U.S. waters. The CWA requires USEPA to establish water quality standards for specified contaminants in surface waters and forbids the discharge of pollutants from a point source into navigable waters without a National Pollutant Discharge Elimination System (NPDES) permit. NPDES permits are issued by USEPA or the appropriate state if it has assumed responsibility. Section 404 of the CWA establishes a Federal program to regulate the discharge of dredge and fill material into waters of the United States. Section 404 permits are issued by the U.S. Army Corps of Engineers (USACE). Waters of the United States include interstate and intrastate lakes, rivers, streams, and wetlands that are used for commerce, recreation, industry, sources of fish, and other purposes. The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Each agency should consider the impact on water quality from actions such as the discharge of dredge or fill material into U.S. waters from construction, or the discharge of pollutants as a result of facility occupation.

Section 303(d) of the CWA requires states and USEPA to identify waters not meeting state water-quality standards and to develop Total Maximum Daily Loads (TMDLs). A TMDL is the maximum amount of a pollutant that a waterbody can receive and still be in compliance with state water-quality standards. After determining TMDLs for impaired waters, states are required to identify all point and nonpoint sources of pollution in a watershed that are contributing to the impairment and to develop an implementation plan that will allocate reductions to each source in order to meet the state standards. The TMDL program is currently the Nation's most comprehensive attempt to restore and improve water quality. The TMDL program does not explicitly require the protection of riparian areas. However, implementation of the TMDL typically calls for restoration of riparian areas as one of the required management measures for achieving reductions in nonpoint source pollutant loadings.

The Safe Drinking Water Act (SDWA) of 1974 establishes a Federal program to monitor and increase the safety of all commercially and publicly supplied drinking water. Congress amended the SDWA in 1986, mandating dramatic changes in nationwide safeguards for drinking water and establishing new Federal enforcement responsibility on the part of USEPA. The 1986 amendments to the SDWA require the USEPA to establish Maximum Contaminant Levels (MCLs), Maximum Contaminant Level Goals (MCLGs), and Best Available Technology (BAT) treatment techniques for organic, inorganic, radioactive, and microbial contaminants; and turbidity. MCLGs are maximum concentrations below which no negative human health effects are known to exist. The 1996 amendments set current Federal MCLs, MCLGs, and BATs for organic, inorganic, microbiological, and radiological contaminants in public drinking water supplies.

The Wild and Scenic Rivers Act of 1968 provides for a wild and scenic river system by recognizing the remarkable values of specific rivers of the Nation. These selected rivers and their immediate environment are preserved in a free-flowing condition, without dams or other construction. The policy not only protects the water quality of the selected rivers but also provides for the enjoyment of present and future generations. Any river in a free-flowing condition is eligible for inclusion, and can be authorized as such by an Act of Congress, an act of state legislature, or by the Secretary of the Interior upon the recommendation of the governor of the state(s) through which the river flows.

Biological Resources

The Endangered Species Act (ESA) of 1973 establishes a Federal program to conserve, protect, and restore threatened and endangered plants and animals and their habitats. The ESA specifically charges Federal agencies with the responsibility of using their authority to conserve threatened and endangered species. All Federal agencies must ensure any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction of critical habitat for these species, unless the agency has been granted an exemption. The Secretary of the Interior, using the best available scientific data, determines which species are officially endangered or threatened, and the U.S. Fish and Wildlife Service (USFWS) maintains the list. A list of Federal endangered species can be obtained from the Endangered Species Division, USFWS (703-358-2171). States might also have their own lists of threatened and endangered species which can be obtained by calling the appropriate State Fish and Wildlife office. Some species, such as the bald eagle, also have laws specifically for their protection (e.g., Bald Eagle Protection Act).

The Migratory Bird Treaty Act (MBTA) of 1918, as amended, implements treaties and conventions between the United States, Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Unless otherwise permitted by regulations, the MBTA makes it unlawful to pursue, hunt, take, capture, or kill; attempt to take, capture, or kill; possess, offer to or sell, barter, purchase, deliver, or cause to be shipped, exported, imported, transported, carried, or received any migratory bird, part, nest, egg, or product, manufactured or not. The MBTA also makes it unlawful to ship, transport or carry from one state, territory, or district to another, or through a foreign country, any bird, part, nest, or egg that was captured, killed, taken, shipped, transported, or carried contrary to the laws from where it was obtained; and import from Canada any bird, part, nest, or egg obtained contrary to the laws of the province from which it was obtained. The U.S. Department of the Interior has authority to arrest, with or without a warrant, a person violating the MBTA.

EO 11514, *Protection and Enhancement of Environmental Quality* (March 5, 1970), states that the President, with assistance from the Council on Environmental Quality (CEQ), will lead a national effort to provide leadership in protecting and enhancing the environment for the purpose of sustaining and enriching human life. Federal agencies are directed to meet national environmental goals through their policies, programs, and plans. Agencies should also continually monitor and evaluate their activities to protect and enhance the quality of the environment. Consistent with NEPA, agencies are directed to share information about existing or potential environmental problems with all interested parties, including the public, in order to obtain their views.

EO 11990, *Protection of Wetlands* (May 24, 1977), directs agencies to consider alternatives to avoid adverse effects and incompatible development in wetlands. Federal agencies are to avoid new construction in wetlands, unless the agency finds there is no practicable alternative to construction in the wetland, and the proposed construction incorporates all possible measures to limit harm to the wetland. Agencies should use economic and environmental data, agency mission statements, and any other pertinent information when deciding whether or not to build in wetlands. EO 11990 directs each agency to provide for early public review of plans for construction in wetlands.

EO 13186, *Conservation of Migratory Birds* (January 10, 2001), creates a more comprehensive strategy for the conservation of migratory birds by the Federal government. EO 13186 provides a specific framework for the Federal government's compliance with its treaty obligations to Canada, Mexico, Russia, and Japan. EO 13186 provides broad guidelines on conservation responsibilities and requires the development of more detailed guidance in a Memorandum of Understanding (MOU). EO 13186 will be coordinated and implemented by the USFWS. The MOU will outline how Federal agencies will promote conservation of migratory birds. EO 13186 requires the support of various conservation planning efforts already in progress; incorporation of bird conservation considerations into agency planning, including NEPA analyses; and reporting annually on the level of take of migratory birds.

Cultural Resources

The American Indian Religious Freedom Act of 1978 and Amendments of 1994 recognize that freedom of religion for all people is an inherent right, and traditional American Indian religions are an indispensable and irreplaceable part of Indian life. It also recognized the lack of Federal policy on this issue and made it the policy of the United States to protect and preserve the inherent right of religious freedom for Native Americans. The 1994 Amendments provide clear legal protection for the use of peyote cactus as a religious sacrament. Federal agencies are responsible for evaluating their actions and policies to determine if changes should be made to protect and preserve the religious cultural rights and practices of Native Americans. These evaluations must be made in consultation with native traditional religious leaders.

The Archaeological Resource Protection Act (ARPA) of 1979 protects archaeological resources on public and American Indian lands. It provides felony-level penalties for the unauthorized excavation, removal, damage, alteration, or defacement of any archaeological resource, defined as material remains of past human life or activities which are at least 100 years old. Before archaeological resources are excavated or removed from public lands, the Federal land manager must issue a permit detailing the time, scope, location, and specific purpose of the proposed work. ARPA also fosters the exchange of information about archaeological resources between governmental agencies, the professional archaeological community, and private individuals. ARPA is implemented by regulations found in 43 CFR Part 7.

The National Historic Preservation Act (NHPA) of 1966 sets forth national policy to identify and preserve properties of state, local, and national significance. The NHPA establishes the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), and the National Register of Historic Places (NRHP). ACHP advises the President, Congress, and Federal agencies on historic preservation issues. Section 106 of the NHPA directs Federal agencies to take into account effects of their undertakings (actions and authorizations) on properties included in or eligible for the NRHP. Section 110 sets inventory, nomination, protection, and preservation responsibilities for federally owned cultural properties. Section 106 of the act is implemented by regulations of the ACHP, 36 CFR Part 800. Agencies should coordinate studies and documents prepared under Section 106 with NEPA where appropriate. However, NEPA and NHPA are separate statutes and compliance with one does not constitute compliance with the other. For example, actions which qualify for a categorical exclusion under NEPA might still require Section 106 review under NHPA. It is the responsibility of the agency official to identify properties in the area of potential effects, and whether they are included or eligible for inclusion in the NRHP. Section 110 of the NHPA requires Federal agencies to identify, evaluate, and nominate historic property under agency control to the NRHP.

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 establishes rights of American Indian tribes to claim ownership of certain "cultural items," defined as Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, held or controlled by Federal agencies. Cultural items discovered on Federal or tribal lands are, in order of primacy, the property of

lineal descendants, if these can be determined, and then the tribe owning the land where the items were discovered or the tribe with the closest cultural affiliation with the items. Discoveries of cultural items on Federal or tribal land must be reported to the appropriate American Indian tribe and the Federal agency with jurisdiction over the land. If the discovery is made as a result of a land use, activity in the area must stop and the items must be protected pending the outcome of consultation with the affiliated tribe.

EO 11593, *Protection and Enhancement of the Cultural Environment* (May 13, 1971), directs the Federal government to provide leadership in the preservation, restoration, and maintenance of the historic and cultural environment. Federal agencies are required to locate and evaluate all Federal sites under their jurisdiction or control which could qualify for listing on the NRHP. Agencies must allow the ACHP to comment on the alteration, demolition, sale, or transfer of property which is likely to meet the criteria for listing as determined by the Secretary of the Interior in consultation with the SHPO. Agencies must also initiate procedures to maintain federally owned sites listed on the NRHP.

EO 13007, *Indian Sacred Sites* (May 24, 1996), provides that agencies managing Federal lands, to the extent practicable, permitted by law, and not inconsistent with agency functions, shall accommodate American Indian religious practitioners' access to and ceremonial use of American Indian sacred sites, shall avoid adversely affecting the physical integrity of such sites, and shall maintain the confidentiality of such sites. Federal agencies are responsible for informing tribes of proposed actions that could restrict future access to or ceremonial use of, or adversely affect the physical integrity of, sacred sites.

EO 13287, *Preserve America* (March 3, 2003), orders Federal agencies to take a leadership role in protection, enhancement, and contemporary use of historic properties owned by the Federal government, and promote intergovernmental cooperation and partnerships for preservation and use of historic properties. EO 13287 established new accountability for agencies with respect to inventories and stewardship.

Socioeconomics and Environmental Justice

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994), directs Federal agencies to make achieving environmental justice part of their mission. Agencies must identify and address the adverse human health or environmental effects that its activities have on minority and low-income populations, and develop agencywide environmental justice strategies. The strategy must list "programs, policies, planning and public participation processes, enforcement, and/or rulemakings related to human health or the environment that should be revised to promote enforcement of all health and environmental statutes in areas with minority populations and low-income populations, ensure greater public participation, improve research and data collection relating to the health of and environment of minority populations and low-income populations, and identify differential patterns of consumption of natural resources among minority populations and low-income populations." A copy of the strategy and progress reports must be provided to the Federal Working Group on Environmental Justice. Responsibility for compliance with EO 12898 is with each Federal agency.

Hazardous Materials and Waste

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 authorizes USEPA to respond to spills and other releases of hazardous substances to the environment, and authorizes the National Oil and Hazardous Substances Pollution Contingency Plan. CERCLA also provides a Federal "Superfund" to respond to emergencies immediately. Although the "Superfund" provides funds for cleanup of sites where potentially responsible parties cannot be identified, USEPA is

authorized to recover funds through damages collected from responsible parties. This funding process places the economic burden for cleanup on polluters.

The Pollution Prevention Act (PPA) of 1990 encourages manufacturers to avoid the generation of pollution by modifying equipment and processes, redesigning products, substituting raw materials, and making improvements in management techniques, training, and inventory control. EO 12856, *Federal Compliance with Right-to Know Laws and Pollution Prevention Requirements* (August 3, 1993) requires Federal agencies to comply with the provisions of the PPA and requires Federal agencies to ensure all necessary actions are taken to prevent pollution. In addition, in *Federal Register* Volume 58 Number 18 (January 29, 1993), CEQ provides guidance to Federal agencies on how to “incorporate pollution prevention principles, techniques, and mechanisms into their planning and decision making processes and to evaluate and report those efforts, as appropriate, in documents pursuant to NEPA.”

The Resource Conservation and Recovery Act (RCRA) of 1976 is an amendment to the Solid Waste Disposal Act. RCRA authorizes USEPA to provide for “cradle-to-grave” management of hazardous waste and sets a framework for the management of nonhazardous municipal solid waste. Under RCRA, hazardous waste is controlled from generation to disposal through tracking and permitting systems, and restrictions and controls on the placement of waste on or into the land. Under RCRA, a waste is defined as hazardous if it is ignitable, corrosive, reactive, toxic, or listed by USEPA as being hazardous. With the Hazardous and Solid Waste Amendments (HSWA) of 1984, Congress targeted stricter standards for waste disposal and encouraged pollution prevention by prohibiting the land disposal of particular wastes. The HSWA amendments strengthen control of both hazardous and nonhazardous waste and emphasize the prevention of pollution of groundwater.

The Superfund Amendments and Reauthorization Act (SARA) of 1986 mandates strong clean-up standards and authorizes the USEPA to use a variety of incentives to encourage settlements. Title III of SARA authorizes the Emergency Planning and Community Right to Know Act (EPCRA), which requires facility operators with “hazardous substances” or “extremely hazardous substances” to prepare comprehensive emergency plans and to report accidental releases. EO 12856 requires Federal agencies to comply with the provisions of EPCRA. If a Federal agency acquires a contaminated site, it can be held liable for clean-up as the property owner/operator. A Federal agency can also incur liability if it leases a property, as the courts have found lessees liable as “owners.” However, if the agency exercises due diligence by conducting a Phase I Environmental Site Assessment, it can claim the “innocent purchaser” defense under CERCLA. According to Title 42 U.S. Code (U.S.C.) 9601(35), the current owner/operator must show it undertook “all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice” before buying the property to use this defense.

The Toxic Substance Control Act (TSCA) of 1976 consists of four titles. Title I established requirements and authorities to identify and control toxic chemical hazards to human health and the environment. TSCA authorized USEPA to gather information on chemical risks, require companies to test chemicals for toxic effects, and regulate chemicals with unreasonable risk. TSCA also singled out polychlorinated bi-phenyls (PCBs) for regulation, and, as a result, PCBs are being phased out. PCBs are persistent when released into the environment and accumulate in the tissues of living organisms. They have been shown to cause adverse health effects on laboratory animals and can cause adverse health effects in humans. TSCA and its regulations govern the manufacture, processing, distribution, use, marking, storage, disposal, clean-up, and release reporting requirements for numerous chemicals like PCBs. TSCA Title II provides statutory framework for “Asbestos Hazard Emergency Response,” which applies only to schools. TSCA Title III, “Indoor Radon Abatement,” states indoor air in buildings of the United States should be as free of radon as the outside ambient air. Federal agencies are required to conduct studies on the extent of radon contamination in buildings they own. TSCA Title IV, “Lead Exposure Reduction,” directs Federal agencies to “conduct a comprehensive program to promote safe, effective, and affordable